DOCUMENT RESUME

ED 349 236 SO 022 400

TITLE	Coffee Connections. A Precollegiate Curriculum Unit. Grades Nine through Twelve. Revised.
INSTITUTION	Stanford Univ., CA. Stanford Program on International and Cross Cultural Education.
PUB DATE	90
NOTE	88p.; Developed by the Latin America project.
AVAILABLE FROM	SPICE--Stanford Program on International and Cross-Cultural Education, Littlefield Center, Room 14, 300 Lasuen Street, Stanford University, Stanford, CA 94305-5013 ($21.95, includes slides for the unit).
PUB TYPE	Guides - Classroom Use - Teaching Guides (For Teacher) (052)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Developing Nations; Economic Factors; *Economics Education; Foreign Countries; Foreign Culture; Foreign Policy; High Schools; *International Trade; Learning Activities; Social Studies; Units of Study
IDENTIFIERS	*Brazil; *California; *Coffee

ABSTRACT

This unit, designed for grades 9-12, introduces students to economic concepts of international trade through the case of the international coffee industry in California and Brazil. The following concepts are among those examined: commodities, factors of production (human resources, capital resources, and environmental resources), imports and exports, economic sectors, absolute and comparative advantage, and terms of trade. The unit contains five lessons that include historical cases, concrete examples, a brief role-play activity, and a simulation exercise. (Some lessons require slides). The titles of the lessons are: (1) International coffee connections; (2) California's coffee connections: past and present; (3) Coffee in Latin America today; (4) Coffee in the international economy today; and (5) Trading coffee information: a simulation. A glossary of terms and a list of recommended resources on economics education are included, as are two appendices: (A) An explanation of absolute and comparative advantage, and (B) California History Social Science Framework. This unit is appropriate for use in economics, world geography, world cultures, Latin American history, world history, and contemporary world issues courses. (DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED349236

COFFEE CONNECTIONS

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

JANE A. BOSTON

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

SO 022 400

SPICE
Stanford Program on International and Cross-Cultural Education

BEST COPY AVAILABLE

STANFORD PROGRAM ON INTERNATIONAL AND CROSS-CULTURAL EDUCATION

SPICE

Littlefield Center, Room 14, 300 Lasuen Street
Stanford University
Stanford, California 94305-5013
☎ (415) 723-1114

Background

The Stanford Program on International and Cross-Cultural Education (SPICE) represents a long-term effort by Stanford University to improve international and cross-cultural education in elementary and secondary schools. The program traces its origins to 1973 with the initiation of the Bay Area China Education Project, an effort to upgrade teaching about the People's Republic of China. Subsequently, parallel projects on Japan, Africa, Latin America, Western Europe, and the Soviet Union and Eastern Europe were established, and together with the China Project, became the nucleus of SPICE. SPICE also offers services in the fields of geography and foreign language.

In 1979, SPICE joined with two other international resource organizations–The World Affairs Council of Northern California and Global Educators–to form the Bay Area Global Education Program (BAGEP), an international studies resource consortium serving K-12 schools and districts in the San Francisco area. In 1986, Stanford University, in cooperation with the World Affairs Council and Global Educators, was selected to manage the California International Studies Project (CISP), a legislatively-based (AB 2543) statewide network of international resource centers for which BAGEP serves as a model. SPICE is the curriculum development and materials resource arm of CISP.

Sponsorship

SPICE is sponsored by the Institute for International Studies and the School of Education at Stanford University.

Sources of Support

SPICE receives support from federal sources, private foundations, and the Institute for International Studies.

Current Programs and Priorities

SPICE's current curricular priority is the development of lessons which enhance the study of world history, cultures and geography. In the area of staff development, SPICE's priority is to provide support for the programs of the CISP Resource Centers. SPICE also has ongoing staff development efforts through each of its individual projects, and is centrally involved in a yearly summer institute on the Stanford campus in conjunction with BAGEP.

Within the range of its existing project, SPICE will provide consultation in the development of international studies programs for elementary and secondary education on a fee for service basis.

Major Emphases

SPICE emphasizes curriculum and staff development and offers a wide variety of teaching materials and staff development programs. SPICE has strong interests in the development of university-based international studies centers, and program evaluation.

Publication of Teaching Materials

SPICE offers over 60 titles which include curriculum units, resource guides, and research reports. Write to SPICE for a free catalogue.

Coffee Connections

A Precollegiate Curriculum Unit
Grades Nine through Twelve

Developed by the Latin America Project
Stanford Program on International and
Cross-Cultural Education (SPICE)

All portions unless indicated are Copyright 1989 by the Leland Stanford Junior University Board of Trustees. Revised and updated 1990. Permission is given to educators to reproduce copies of student handouts for individual classroom use. Other questions about permission should be addressed to the Latin America Project, Stanford Program for International and Cross-Cultural Education, Littlefield Center, Rm 14, 300 Lasuen St., Stanford, CA 94305-5013, (415) 723-1114

Acknowledgements

This curriculum unit was developed with funding from the Stanford Center for Latin American Studies, the Center for Research on International Studies, and the International Research and Studies Program, Office of Postsecondary Education U.S. Department of Education.

The Latin America Project would like to acknowledge the efforts of the following individuals in the development of this curriculum unit:

Curriculum Writer:	Kathie Toland
Latin America Project Coordinator:	Dr. Giselle O. Martin
Editors:	Bruce Uhrmacher Dr. Giselle O. Martin Jean Lyle Lia Turk Kheirolomoom Dorothy Justen Julie Cummer
Faculty Review:	Dr. Steve Hughes Dr. Clark Reynolds Dr. Steve Tomlinson Dr. Gavin Wright
SPICE Director	Dr. Judith Wooster
Illustration:	Richard Anthony Cardona

We wish to acknowledge the direction provided by David L. Grossman, Ph.D., former SPICE Director, who helped in the conceptualization of the unit from beginning to end. Also thanks to Bruce Uhrmacher who created Lesson Five with the assistance of Evelyn Hawkins.

Table of Contents

Unit Overview 1

Student Objectives 2

Introduction 4

Lesson One: INTERNATIONAL COFFEE CONNECTIONS 11
- Handout 1A: Pre-test: Coffee Connections, Past and Present 14
- Teacher's Answer Key for Handout 1A 16
- Handout 1B: A Map of Import and Export Routes for the International Coffee Industry 18
- Handout 1C: Using the Map 19
- Teacher's Answer Key to Handout 1C 21
- Handout 1D: Consumer Survey for Students' Households 23

Lesson Two: CALIFORNIA'S COFFEE CONNECTIONS: PAST AND PRESENT 24
- Handout 2A: Historical Background to International Trade: San Francisco's Early Coffee Pioneers 28
- Handout 2B: International Coffee Industry: Focus on California (Slides and Discussion) 33

Lesson Three: COFFEE IN LATIN AMERICA TODAY 37
- Handout 3A: The Dilemma of Coffee: Decision-Making Activity About Brazil 40
- Handout 3B: "Boom and Bust" Cycles for Coffee Producers: The Role of International Agreements 42
- Handout 3C: Reading: Understanding Terms of Trade (Homework) 46

Lesson Four: COFFEE IN THE INTERNATIONAL ECONOMY TODAY 48
- Handout 4A: International Trade and Debtor Nations of Latin America 52

Lesson Five: TRADING COFFEE INFORMATION: A SIMULATION 56
- Handout 5A: Teacher's Directions 61
- Handout 5B: Questions for Team A 62
- Handout 5C: Questions for Team B 64
- Handout 5D: Questions for Team C 65
- Teacher's Answers Key 67
- Handout 5F: World Map 69

Glossary 70

Appendix A: An Explanation of Absolute and Comparative Advantage 75

Appendix B: California History Social Science Framework 77

Curriculum Unit Evaluation Form 78

Recommended Resources on Economics Education: Focus on Latin America/Resources on International Debt 80

©1990 SPICE

Unit Overview

The five lessons included in **Coffee Connections** are intended to be an integral part of economics education in existing social studies courses. The case of the international coffee industry in California and in Brazil will dramatize the following economic concepts for students: **commodities, factors of production** (human resources, capital resources, and environmental resources), **imports and exports, economic sectors, absolute and comparative advantage**, and **terms of trade**. Both visually through slides and experientially through decision-making and simulation activities, students will be able to grasp the interrelatedness of international markets between producers and consumers.

Use of Lessons

Although the issues presented in the **INTRODUCTION** are vitally important in today's world, they are highly complex to explain to students. Important economic concepts and issues are presented in five lessons which include historical cases, concrete examples, a brief role-play activity, and a simulation exercise. Lessons #1 and #2 flow easily and should be presented sequentially. The role-playing activity presented in Lesson #3 followed by the in-depth treatment of relevant economic concepts in Lesson #4 assume that students have had some background in Economics. Thus, Lessons #3 and #4 could be taught as discrete curriculum supplements, once students have been exposed to basic economic concepts. Lesson #5 teaches students about absolute and comparative advantage through a simulation in which the concepts are derived by reflecting on the activity itself. Lesson #5 could be used in lieu of selected activities in Lessons #2 and #3. Most texts on Latin America introduce the importance of the coffee trade, yet few allow students to experience the connections between their lives and that trade.

Grade Level: 9-12

Appropriate Courses:

Economics, World Geography, World Cultures, Latin American History, World History, and Contemporary World Issues.

Materials:

Slide Projector, Reading Assignments, Handouts

© 1990 SPICE

Knowledge

Students will:

- understand international exchange of commodities and tangible goods exchanged for money.
- identify factors of production: land, labor, and physical capital in the international coffee industry.
- identify economic sectors (agricultural, industrial, commercial, and service) within the producer and consumer nations.
- learn the history of California's international trade with Latin America through a case study of San Francisco's coffee industry.
- examine the role of international commodity agreements in international trade.
- understand the concepts *absolute advantage, comparative advantage, scale economies, terms of trade.*

Skills

Students will:

- locate producer and consumer nations on a world map and make generalizations about their interrelatedness.
- survey their households' coffee consumption patterns and make applications to changing world coffee consumption patterns.
- apply economic concepts through visual literacy activities which introduce slides of coffee production in the United States.
- role-play the decision of a Brazilian farmer and critically examine that decision in the context of national and world events today.
- explain the concept *terms of trade* in regard to developing countries.

© 1990 SPICE

Attitudes

Students will:

- empathize with the dilemma facing the coffee growers in Brazil and, on a broader level, with the dilemma facing developing nations whose export earnings are consumed by repayment of international loans.
- appreciate the early pioneers' contributions to California's coffee trade and the trends which have had an impact on that industry.
- discover occupations within an international industry located both in California and in the developing nations of the world.
- experience and, therefore, become sensitive to the interconnections between local coffee consumption and millions of people in developing countries.

© 1990 SPICE

History and Economic Terms

The intent of this curriculum is to examine one natural commodity, *coffee,* and its relationship to key issues in the international economy.

The story of coffee, a drink brewed from roasted and ground coffee beans, begins in Ethiopia. Legend has it that a boy, Kaldi, was delighted to find his goats' spirits and productivity improved after eating "strange" berries. The news that the peanut-sized beans contained a mild stimulant quickly spread in the Middle East. As early as 600 A.D. beans brewed in Arabia were called "mocha" after the former capital city of Yemen. By 1500, Europeans were anxious to add coffee to the spices that Venetian traders brought back from Turkey. Coffee houses in Venice, London, and Paris became extremely popular in the sixteenth and seventeenth centuries. In Germany women enjoyed a custom known as the "Kaffee Klatsch" in their homes.

So popular was coffee that European trading companies, such as the Dutch East India Company, transplanted Arabian coffee plants to the island of Java, Indonesia, in 1696. Later, a Portuguese soldier smuggled a plant to Brazil where it adjusted well to the southeastern region's slopes near the city of Sao Paulo. Latin American coffee agriculture began to spread throughout southern Brazil, much like cotton agriculture spread from the Eastern seaboard of the United States to the South and, finally, Texas.

As coffee became popular, the seeds and plants were jealously guarded. Essentially coffee had become a *commodity,* a tangible good traded and exchanged for money. Latin America's main natural commodities fall into five categories: agriculture, nonfuel minerals, forest products, fishery products, and fuels. Commodities in which Latin American nations hold an *absolute advantage* (that is, products can be produced more efficiently and cheaply than elsewhere) are sugar, bananas, wheat, beef, copper, and iron.

Coffee was probably first traded through a *bartering* system where one good was exchanged for another good. When *prices* were determined through the *market,* they reflected the interaction of the supply of the good, demand for the good by the consumer, and the production processes involved. The changing needs and desires of people around the world (*demand*) created a *marketplace* in which the quantities of commodities sold (*supply*) determined the *price.* Today coffee ranks second only to petroleum in dollar value among natural commodities traded internationally.

In Africa, Asia, and Latin America fifty-three countries rely upon coffee as a major source of foreign exchange, employing over 25 million people in the coffee industry. Through trade, these nations earn the foreign exchange needed to repay loans to foreign banks, to import skyrocketting goods and services, and to enlarge their dwindling currency reserves.

© 1990 SPICE

Few students in the United States have a realistic image of this international industry. The SPICE/Latin America Project intends to present an examination of these questions: **How is Latin America's coffee industry changing with improved management and technology?** and **What is the Economic interrelationship between producers and consumers today?**

Coffee Connections introduces students to economic concepts of international trade, economic relationships among diverse world regions, and a historical case study of San Francisco's coffee industry. The stages of production from grower to consumer are identified and illustrated by slides and interviews with both Latin Americans and Californians. The variety of perspectives will introduce students to the complex issues confronting millions of the world's people who depend upon coffee for their livelihood.

This unit, especially designed for grades 9-12, describes and evaluates the exchange of coffee and coffee's by-products in the larger context of international trade relations. At the same time, it introduces economic concepts, clarifies key issues of economic exchange, and explains the dilemma faced by developing countries.

Trade in primary commodities is vital to the countries of Latin America, Africa, and Asia, yet it also raises important policy issues:

- Are barriers to free flow of coffee necessary?
- How can deteriorating "terms of trade" for Latin American nations improve?
- What are the advantages and disadvantages of International Commodity Agreements?

Developing countries today have a diminishing share of world trade. Their income from exports is insufficient to meet the costs of their essential imports, such as oil and manufactured goods. The subsequent decline in their capacity to import also affects the economies of industrial nations like the United States, which is Latin America's largest foreign supplier of metals, machinery, transportation equipment, and chemicals. In 1982 and 1983, U.S. exports to Latin America dropped by almost twenty-five percent. This situation reflects the dramatic change in trade patterns between developing nations and industrialized nations in the last decade.

Historically, Latin America began its international trade as a supplier of raw materials and agricultural products. Until twenty years ago, these commodities had accounted for more than two-thirds of its total earnings; now these exports account for less than half of its total earnings. Recent trends indicate that export of fuels is the most rapidly growing part of Latin America's natural resource trade. Agricultural commodities, until recently, have declined in importance despite Latin

© 1990 SPICE

America's capacity to supply these products at a lower cost than other producers. However, despite efforts to encourage economic diversification in the production of sugar cane, cotton and other export commodities, countries like El Salvador, Nicaragua, Haití and Colombia have become even more dependent on coffee exports during the last ten years.

Because of the intense need for Latin American debtor nations to earn foreign exchange in order to pay their debts, policy-makers face this dilemma: should they emphasize agricultural exports over expanding industrial activities or should they just expand industrial activities? Several problems exist. Since the countries which import Latin American products are themselves producers of agricultural and industrial products, they have erected trade barriers which impede Latin America's ability to fully participate in international trade. Some industrial nations, especially in Europe, have internal taxes on coffee or preferential agreements to trade with former colonies. In addition, capitalist coffee-producing nations face problems which have always plagued the industry: "boom and bust" cycles, or the rise and fall of demand, risks such as disease, frost, natural disasters, rainfall and war. In order to moderate the impact of "boom and bust" cycles, international agreements among producer nations have set export quotas and prices creating another barrier to trade. Continued emphasis on export earnings in Latin American nations provides the context by which to evaluate the economic policies of the international coffee industry.

The issue of terms of trade—a ratio of average export prices to average import prices—is a critical one for Latin American and African nations. In spite of voluntary export quotas, the price obtained for commodities continues to be low, and a deficit exists in the balance of trade (difference between total exports and total imports). The sharp rise in oil prices in 1973 was a critical event that resulted in a rapid and continued economic decline among developing nations. Many hope for an increase in international trade to generate more foreign exchange for developing countries.

Although Latin America's imports from the United States have dropped, there are signs of growth in its exports to the United States. The need to earn foreign exchange to repay loans from foreign banks means that commodities such as coffee will continue to play a significant role in Latin American economic development.

The Consumer Nations

From the perspective of the consumer, nations' price swings upset peoples' customary consumption habits. Ready supplies of green coffee beans in Central America, South America, and Asia had been imported by the United States throughout the nineteenth and twentieth centuries. World War I cut off supplies from Europe, Asia, and Africa and strengthened ties between Latin American growers

© 1990 SPICE

and U.S. coffee consumers. Even the shortages of World War II did not totally change traditional consumption patterns in the United States.

As new technology increased profits, and a larger workforce was drawn into coffee production worldwide in the 1950's and 1960's, coffee supplies increased. Key international leaders, such as John F. Kennedy, recognized the connection between consumer nations and producer nations. President Kennedy commented that "A drop of one cent a pound for green coffee costs Latin American producers $50 billion in export proceeds...." This statement foreshadowed requests by coffee producer nations for an international commodity organization to moderate the "Boom and Bust" cycles from which they suffered.

Yet the United States and other consumer nations in Europe have not always acted on behalf of coffee producers' interests. In 1968 when Latin American nations, chiefly Brazil, began to process and manufacture instant coffee, the U.S. coffee interests blocked the importation of processed coffee which would compete with instant coffee processed in the United States. This happened at a 1968 International Coffee Conference, a predecessor of the international commodity agreement which is in effect today.

From the consumers' perspectives, however, a dramatic drop in coffee supply can also have a strong impact on coffee prices. Changes in coffee prices were seen most strongly in the United States in 1976 and 1977. A frost in July, 1975, damaged nearly half of the three billion coffee trees in Brazil. Events in other countries also disrupted future coffee stocks—a civil war in Angola, bad weather in Colombia, an earthquake in Guatemala and coffee rust in Central America. According to a U.S. Comptroller General's Report to Congress in 1978,"Price increases of over 250 percent in less than two years created a movement within the United States for a consumer boycott against coffee consumption, and the Department of State and private U.S. coffee roasters were criticized for not taking more forceful action to slow or lower these pricing trends."

The price of coffee to roasters (wholesale) rose from 50¢ a pound for green coffee to $3.50 a pound. (Green refers to the fact that the coffee has not yet been roasted.) It became difficult to borrow in order to purchase green coffee and, consequently, the entire credit structure of the U.S. coffee industry was undermined. Commodity markets depended upon a constant supply, and consequently, stable prices again were threatened.

The coffee boycott of 1978 was a response to a change in traditional international trading patterns with Latin America. Yet today, the United States continues to take a strong role in an international commodity agreement whose purpose is to eliminate such disruptions. But in doing so, non-tariff barriers to free trade have been created: i.e., export quotas which are negotiated every four years between major producing

and consuming nations, taxes on coffee processed before it is exported, and preferential treatment of certain countries' commodities. As the largest consuming nation in the world, the United States is a leader in the international organization which regulates the agreement: the International Coffee Organization located in London.

The International Coffee Agreement

Brazil has always been a leader in the effort to create international organizations to control coffee supplies, since it is the world's largest producer. During the 1930's, coffee trees (as old as twenty years) were ripped out when overproduction caused a drop in prices. To prevent this happening again, three attempts were made to create international agreements:

- 1936, Pan American Coffee Agreement
- 1940, Inter-American Coffee Agreement
- 1959, Latin American Coffee Agreement

The latter two consisted of coffee-producing nations only. Similar to OPEC, Organization of Petroleum Exporting Countries, they limited supply and attempted to set prices.

In 1958, steps were taken which resulted in an organization composed of importing and exporting countries. Regional organizations such as Inter-African Coffee Organization (IACO) and Coffee Federation of the Americas (FEDECAME), were joined by the United States. A draft document was presented to a United Nations Conference (1962), and the International Coffee Organization was created in 1965.

Through the International Coffee Agreement, among the oldest of international commodity agreements, 50 producer nations and 21 consumer nations agree to cooperate in order to stabilize prices and provide regular annual commodity flows into world markets. The United States, the largest consumer nation, has participated in four International Coffee Agreements (1962, 1968, 1976, 1982) with Congressional approval required every 3 years. Member nations receive votes in proportion to their share of international coffee trade. A major objective of this agreement is to balance supply and demand, thus insuring fair prices for producers and consumers, as well as a stable supply of coffee.

Other objectives were to avoid harmful fluctuations of coffee supplies, stock, and prices; to promote employment and income in member nations; to increase purchasing power of coffee-exporting countries through stable prices; and finally:

© 1990 SPICE

> to further international cooperation in connection with world coffee problems." (Coffee Production and Marketing Systems, Comptroller General's Report to Congress, 1978-79).

The ICA has relied upon export quotas, so that when coffee production is up, quotas maintain stable prices and prevent "gluts" (or oversupply) to world markets. It works for the removal of obstacles to consumption such as import tariffs, internal taxes, and import quotas.

During the years between 1982-1984, coffee prices ($1.43/green pound) were relatively stable when compared with other commodities such as soybeans, sugar, and cocoa. The Coffee Agreement of 1982 did not please all coffee-producing nations, however. Producer countries still believe prices are too low in relation to production costs. They also had a larger coffee surplus due to more productive and disease resistant coffee trees planted after the Brazilian frost. The need for higher export earnings to repay foreign debt puts extreme pressure on the fragile international commodity agreement.

Unfortunately, since world demand for coffee has not grown, increased coffee production put pressure on the International Coffee Organization to balance oversupply with individual needs of producer nations to gain larger export quotas and to reduce surplus coffee stocks. The pressure to export more coffee has resulted in widespread smuggling and cut-throat competition among coffee-producing nations.

From the perspective of consumer nations, the ICA had kept prices stable in the face of oversupply. Yet the coffee producers' perspective is different. Because of the oversupply, they are forced to sell to non-members and to place coffee on the contraband market to distribute surplus coffee. Contraband coffee with falsified import/export stamps is often sold as growers are forced to circumvent the international agreement. Smuggling only deprives the developing nations of export duties and needed foreign exchange currency.

Another key problem is the dependence of many Latin American and African countries on one crop. Economies which are able to substitute food crops for coffee have been able to balance sources of export earnings. Brazil is one good example: its soybean production is equal to its coffee production today. Through organizations such as the International Bank for Reconstruction and Development and the Food and Agriculture Organization of the United Nations, attempts are underway to encourage crop diversification. Yet the flow of coffee today continues, with the export quotas mentioned above to regulate the free interaction of supply and demand. Since world coffee consumption has not grown, and prices remain low, problems that have traditionally plagued coffee growers will continue.

Coffee Connections will examine coffee's relationship to the major issues outlined above: trade patterns, role of agricultural exports, trade barriers, and terms of trade for Latin American nations. Questions posed to students at the end of the unit include the following:

- Are barriers to free flow of coffee necessary?
- How can "terms of trade" for Latin American countries improve?
- What are the advantages and disadvantages of International Commodity Agreements?
- Does the International Coffee Agreement promote the fullest use of productive resources (environmental, human, and capital)?
- How does the International Coffee Agreement affect groups within both consuming and producing countries? Who is better or worse off?
- Is it necessary for producer countries to maintain stable prices in order to best use their resources?
- Should governments or organizations be able to restrict the market?
- What is the major interest of each party in multilateral negotiations?

© 1990 SPICE

Lesson One

International Coffee Connections

Introduction

Latin American countries have historically supplied the world with raw materials and foodstuffs, called primary commodities. This role as an exporter of goods has been complemented by consumer demand for those goods in industrialized nations. A good example of a Latin American agricultural commodity traded world-wide is coffee, second only to crude petroleum as a percentage of international commodity trade. Through a pre-test students will be surprised at the international connections, past and present, which involve coffee. With a focus on California, students will broaden their view to consider the international trading partnerships and exchange routes which affect the trade of coffee world-wide.

Objectives

Students will:

- brainstorm common crops, minerals, and products associated with Latin America which are commodities: tangible goods bought and sold for money.
- explore the nature of Latin America's traditional trade of agricultural commodities with industrialized nations.
- apply the concepts ***export*** and ***import*** as they locate the coffee producer and consumer nations of the world.
- survey their own households' patterns of coffee consumption and calculate average North American consumption patterns.

Materials

California's Coffee Connections, Past and Present Pre-test (Handout #1A)
Map of Export/Import Routes for Coffee (Handout #1B)
Using the Map (Handout #1C)
Teacher's Answer Key to Handout #1C
Homework: Consumer Survey of Students' Households (Handout #1D)

Procedures:

1. Explain to students that not every nation is able to produce every agricultural or mineral resource, or industrial product, efficiently or economically. Historically, Latin America had the environmental resources (climate, land, location) to produce many agricultural commodities and to extract minerals. It also possessed the human

© 1990 SPICE

resources—labor—for large-scale agriculture. Until the 1960's these agricultural and mineral products accounted for over seventy percent of Latin America's export trade. (Some cite 97%, Grunwald, 1966).

2. Introduce the following vocabulary:

   Exports: Goods and services produced in one country and sent to another country for sale.

   Imports: Goods and services brought in from a foreign country.

3. Write on the board the five headings: agricultural, mineral, fuel, forest products, and fishery products. These are the primary categories of products exported by Latin American countries. Ask students to guess the products under each heading.

   Agricultural: coffee, soybeans, beef, cotton, cocoa, maize, bananas, and wheat
   Non-fuel Minerals: copper, iron ore, bauxite
   Fuels: crude petroleum
   Forest Products: timber
   Fishery Products: fishmeal and shellfish

4. In return for these exports, Latin America countries received money called *foreign exchange*, money in another country's currency, which is used to purchase needed products abroad. Agricultural and mineral *commodities*, tangible goods that are bought and sold, were the main way that Latin American, and many African nations as well, earned foreign exchange as recently as twenty years ago.

5. Coffee is the commodity that everyone associates with Latin America. California and San Francisco have local connections to Latin America through this industry which offers employment in food processing, distribution, and sales.

   How many occupations can students think of in relation to the coffee trade? (Possible answers are: truck drivers, warehousemen, shippers, importers, exporters, machinists, tasters, packers, store owners, wholesalers, retailers, brokers, clerical staff, computer operators, and more).

6. Hand out the **pre-test** (Handout #1A) so that students will hypothesize facts about international coffee connections. Ask students to work in pairs. The answers are not as important as the activity, which is intended to raise students' awareness of how coffee fits into the international trade network

© 1990 SPICE

both today and in the past.

Some possible discussion questions after completing the pre-test are:

- Why is Africa important in the coffee trade?
- Why is Asia important in the coffee trade?
- When and why did people in San Francisco first import coffee?

7. Next, hand out the **Map of Import and Export Routes** for coffee (Handout #1B and Handout #1C: Using the Map). (Refer to Handout #2B, Slides and Discussion Questions for two slides of maps with and without routes marked.) Note that the map is not all inclusive: for example, New Orleans is not marked as an import port-of-entry.

   The import/export routes on the map demonstrate the interconnectedness of producer nations and consumer nations as trading partners. The teacher should explain that the earliest regions where coffee was grown were: Africa (East), Asia (Indonesia), and the Middle East (Saudi Arabia). Now it is grown at higher elevations throughout the mid-latitudes (23.5N-23.5S). Sometimes it is grown on extremely large plantations (Brazil) and other times, as in Africa, on small farm plots. Nine Latin American and thirteen African nations depend upon coffee for export earnings. Some, like Colombia, depend upon coffee exports for about half of total exports (ABECOR, 1986) with one out of seven Colombians employed in the coffee industry.

8. Emphasize the aspect of interrelatedness of coffee consumers (the students and their households) with the millions of people around the world whose livelihood depends upon coffee production. Throughout the regions of Africa, Asia, and Latin America, the labor-intensive coffee industry employs large segments of the population, estimated at 25 million.

9. Assign students the **Consumer Survey** (Handout #1D) to determine their household's use of coffee. Some classes may wish to add their own questions to this brief list of suggested questions:

   - Has your household's coffee consumption increased or decreased?
   - What do your classmates think of drinking coffee?
   - What factors do you consider in your decision?

Coffee Connections Today and in the Past

1. How many countries depend upon coffee exports as a major source of foreign exchange earnings?
   a) less than 10
   b) 10 to 25
   c) 26 to 50
   d) 50 or more

2. What continents are the major coffee-producing regions?
   a) Asia, North America, and Europe
   b) Central America, South America, and Australia
   c) Central America, South America, Africa, and Asia
   d) South America, Africa, and Asia

3. What continents are top coffee-consuming regions?
   a) Asia, Africa, and Latin America
   b) North America, South America, and Australia
   c) South America, North America, and Africa
   d) North America and Europe

4. Coffee was first discovered in:
   a) Africa
   b) Middle East
   c) South America
   d) Asia

5. Coffee became a popular beverage in San Francisco during the 1850's due to the:
   a) cold rainy climate
   b) arrival of the 49ers
   c) increased shipping from the Isthmus of Panama
   d) warehouse facilities to store green coffee beans
   e) all of the above

6. In the 1880's San Francisco's coffee importers introduced the "cup test" to:
   a) weigh green coffee beans
   b) test aroma of coffee
   c) determine taste and quality
   d) scientifically measure chemical balance in brewed coffee

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

7. Although coffee has remained the most popular beverage in the United States, coffee drinking has declined most in the age group:
   a) under 30
   b) 30-40
   c) 40-50
   d) 50-60

8. The International Coffee Agreement (since 1962) is a quota system to limit the outflow of beans from producing nations in times of oversupply in order to stabilize coffee prices.

   True ☐
   False ☐

9. Developing nations caught in a critical foreign debt situation:
   a) look to exports to improve the national economies
   b) pay out export earnings to reduce interest rate on debts
   c) depend upon coffee consumption in industrialized countries
   d) all of the above

© 1990 SPICE

COFFEE CONNECTIONS TODAY AND IN THE PAST

1. How many countries depend upon coffee exports as a major source of foreign exchange earnings?
   a) less than 10
   b) 10 to 25
   c) 26 to 50
   d) 50 or more

2. What continents are the major coffee-producing regions?
   a) Asia, North America, and Europe
   b) North America, South America, and Australia
   c) North America, South America, Africa and Asia
   d) South America, Africa and Asia

3. What continents are top coffee-consuming regions?
   a) Asia, Africa, and Latin America
   b) North America, South America, and Australia
   c) South America, North America, and Africa
   d) North America and Europe

4. Coffee was first discovered in:
   a) Africa
   b) Middle East
   c) South America
   d) Asia

5. Coffee became a popular beverage in San Francisco during the 1850's due to the:
   a) cold rainy climate
   b) arrival of the 49'ers
   c) increased shipping from the Isthmus of Panama
   d) warehouse facilities to store green coffee beans
   e) all of the above

6. In the 1880's San Francisco's coffee importers introduced the "cup test" to:
   a) weigh green coffee beans
   b) test aroma of coffee
   c) determine taste and quality
   d) scientifically measure chemical balance in brewed coffee

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

7. Although coffee has remained the most popular beverage in the United States, coffee drinking has declined most in the age group:
   a) under 30
   b) 30-40
   c) 40-50
   d) 50-60

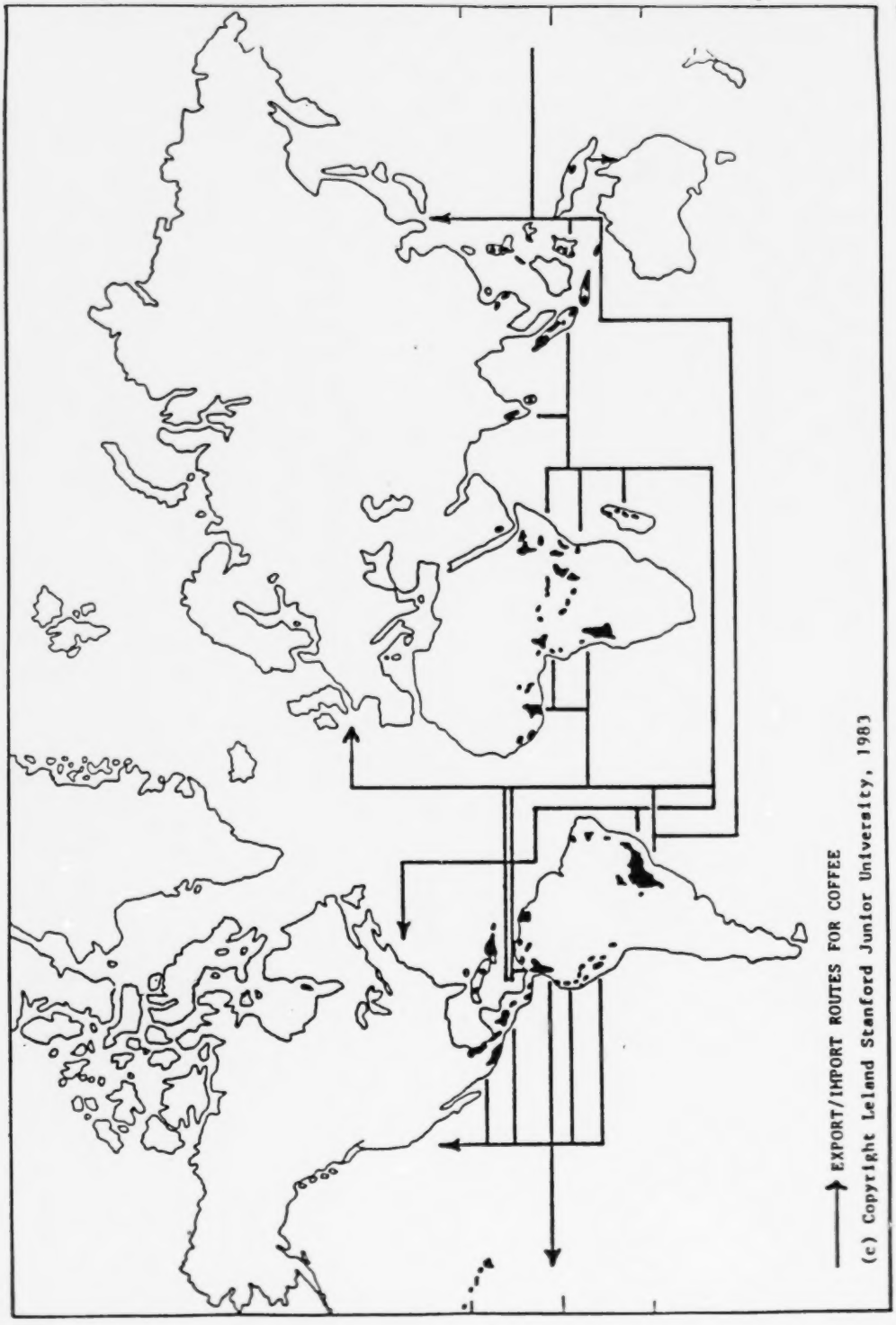
8. The International Coffee Agreement (since 1962) is a quota system to limit the outflow of beans from producing nations in times of oversupply in order to stabilize coffee prices.

   True ☑
   False ☐

9. Developing nations caught in a critical foreign debt situation:
   a) look to exports to improve the national economies
   b) pay out export earnings to service the interest rate on their debt
   c) depend upon coffee consumption in industrialized countries
   d) all of the above

© 1990 SPICE

Export Routes for the International Coffee Industry



© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

Using the Map

INTRODUCTION: Coffee producing nations are those which fall between the tropics of Cancer and Capricorn on a world map. Yet coffee is not a tropical crop, but is grown at higher elevations where climate is temperate. Consumer nations are located in the Northern Hemisphere where the climate is colder.

USING THE MAPS:

1. Name five coffee growing nations and their continents.

2. Where does San Francisco's coffee come from?

3. Where does Japan's coffee come from?

4. Where does Brazil's coffee come from?

5. Name one place where coffee is not produced?

6. Where is most coffee imported?

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

7. Locate the following coffee-producing nations, and list the under the continent or area to which they belong:

India	Indonesia	Costa Rica	Cuba
El Salvador	Ethiopia	Angola	Malaysia
Ivory Coast	Sierra Leon	Vietnam	Yemen
Uganda	Zaire	Brazil	Colombia
US-Hawaii	Venezuela	Mexico	Burundi
Guatemala	Nicaragua	Philippines	US-Puerto Rico
Kenya	Thailand	Haiti	Ecuador
Bolivia	Peru	Paraguay	Jamaica
Panama	Cameroon	Madagascar	Rwanda
Central African Republic	Tanazania		

S. AMERICA	AFRICA	ASIA	C. AMERICA & CARIBBEAN	OCEANIA

© 1990 SPICE

INTRODUCTION: Coffee producing nations are those which fall between the tropics of Cancer and Capricorn on a world map. Yet coffee is not a tropical crop, but is grown at higher elevations where climate is temperate. Consumer nations are located in the Northern Hemisphere where the climate is colder.

USING THE MAPS:

1. Name four or five coffee growing nations and their continents.

   Brazil & Colombia in South America; Angola, Kenya, & Ivory Coast in Africa; Indonesia & Malaysia in Asia

2. Where does San Francisco's coffee come from?

   Central America

3. Where does Japan's coffee come from?

   Central and South America

4. Where does Brazil's coffee come from?

   Brazil

5. Name one place coffee is not produced?

   Australia, China, Europe (among others)

6. Where is most coffee imported?

   North America and Western Europe

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

7. Locate the following coffee-producing nations, and list the continent to which they belong:

India
El Salvador
Ivory Coast
Uganda
US-Hawaii
Guatemala
Kenya
Bolivia
Panama
Central African Republic
Indonesia
Ethiopia
Sierra Leone
Zaire
Venezuela
Nicaragua
Thailand
Peru
Cameroon
Tanazania
Costa Rica
Angola
Vietnam
Brazil
Mexico
Philippines
Haiti
Paraguay
Madagascar
Cuba
Malaysia
Yemen
Colombia
Burundi
US-Puerto Rico
Ecuador
Jamaica
Rwanda

S. AMERICA	AFRICA	ASIA	C. AMERICA & CARIBBEAN	OCEANIA
Bolivia	**Ivory Coast**	**India**	**Jamaica**	**US-Hawaii**
Venezuela	**Uganda**	**Indonesia**	**El Salvador**	
Peru	**Kenya**	**Thailand**	**Guatemala**	
Brazil	**Ethiopia**	**Vietnam**	**Panama**	
Paraguay	**Sierra Leone**	**Malaysia**	**Nicaragua**	
Colombia	**Zaire**	**Philippines**	**Costa Rica**	
Ecuador	**Cameroon**		**Mexico**	
	Angola		**Haiti**	
	Tanzania		**Cuba**	
	Burundi		**US-Puerto Rico**	
	Madagascar			
	C. African Rep.			
	Yemen			
	Rwanda			

© 1990 SPICE

Consumer Survey

Consumer Survey

1. How much coffee does your household consume daily?
   a) 1-4 cups b) 5-8 cups c) 9-12 cups d) none

2. During what time(s) of the day do these members drink coffee?
   a) 6am - 8am b) 12pm - 4pm c) 5-10pm d) never

3. Why does your household coffee-buyer purchase a particular brand of coffee? (circle all that apply)
   a) flavor b) price c) coupons d) other

4. What type of coffee does your household buy most?
   a) ground roasted b) whole roasted beans
   c) decaffeinated d) instant coffee solids
   e) freeze-dried coffee f) none

5. How many pounds of ground roasted coffee does your household buy each month? (Ask your chief coffee-buyer at home!)

Calculations (To be done at school)

1. If one pound of coffee equals 32 cups (1 oz. = 2 cups), how many days will it take for your family to consume one pound of coffee (See #1 above)

2. Take the average number of days for the students' families to consume one pound of coffee by adding up all the answers from question #1 and dividing it by the number of students in the classroom.

3. Divide 365 by your answer to question #2 in order to determine how many pounds of coffee are consumed by the students' families in one year.

Research

1. What are some ways that people in other countries drink or brew coffee?

2. How is caffeine removed from coffee beans?

3. How is coffee freeze-dried to create coffee solids or soluble coffee?

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

Lesson Two

California Coffee Connections

Introduction

Remind students that California's coffee connections have a long history. The pioneers who imported coffee took advantage of ships which had to make the long trip up the coast of South America before the Panama Canal existed. Today these same countries in Central and South America are major trading partners and still provide coffee to companies in the northern California region. This lesson is intended to introduce the historical context and to provide visual images of coffee production in California.

Objectives

Students will:

- understand the key world events which had an impact on California's coffee trade: The Gold Rush, the Civil War, the opening of the Panama Canal, World Wars I and II.
- link California's early coffee roasting industry with the coffee plantations of Central America, South America and finally, the world.
- identify human, environmental and capital resources as factors of production.
- examine the economic sectors of the coffee industry today: agricultural, industrial, and commercial.

Materials

A Reading: Early Coffee Pioneers (Handout #2A)
The International Coffee Industry:
Focus on California (Slides and Discussion) (Handout #2B)

Procedures:

1. Introduce the historical reading assignment, **Early Coffee Pioneers** (Handout 2A) with broad questions on the ways that historical world events opened California's markets to the international coffee trade: the Gold Rush, the Civil War, the opening of the Panama Canal, and World Wars I and II. How did each event affect San Francisco's and California's world trade?

© 1990 SPICE

The Gold Rush (1848): This event increased the number of ships coming to California around the tip of South America, Cape Horn. In order to fill the ships, goods were traded along the way. Coffee was placed aboard ships in Central America (Costa Rica, Guatemala, Honduras, El Salvador), and Colombia. The combination of the growing population and the cool climate in San Francisco contributed to making coffee a popular beverage to keep the miners warm.

The Civil War (1861-1865): One of the early California importers, Joseph Brandenstein, hoarded tobacco before the Civil War. When war restricted the shipment of tobacco out of the South, Brandenstein was able to make a fortune selling his tobacco stocks. This enabled him to import coffee.

The Panama Canal Opening (1914): More ships were able to travel from the Atlantic to the Pacific Ocean and the change of goods between the East and West coasts of the United States was greatly increased. "Pacific Coast-style" coffee became popular in the eastern part of the United States.

World Wars I and II (1914-18, 1941-45): During World War I, coffee imports from Europe were cut off and the trading partnership between Central America and California became stronger. World War II resulted in coffee shortages and rationing, yet coffee companies survived.

2. Review vocabulary underlined in story:

Bankrupt:	someone who owes more money than he or she has and is unable to pay bills
Creditors:	a person or firm to whom one owes money
Export:	goods and services produced in one country and sent to another country for sale
Import:	goods and services sold within the country besides the one where they were produced
Invest:	to spend money to gain profit or interest
Partner:	two or more persons who work together in a business
Profit:	the return (money) received on an investment after the expenses are paid
Solvent:	ability to pay all bills and meet all financial obligations
Trade:	exchange of goods or services
Wholesale:	the sale of large quantities of a good for purposes of resale to consumers

 © 1990 SPICE

3. Significant technological advances which made San Francisco's coffee industry unique are: "cup" testing, vacuum-packing, and recently the application of computer technology to the roasting and production process.

   Why are fewer and fewer people employed in the production (industrial sector) end of the coffee industry in the United States?
   Because of the computerization and mechanization of production due to high cost of labor and readily available technology.

4. During the slide discussion, **The International Coffee Industry: Focus on California** (Handout 2B), allow questions on each slide to encourage student involvement and participation. The economic concept under each slide is defined in the context of the slide description which follows the discussion questions. Since the curriculum is intended for use in economics education, it is important to emphasize the economic concepts as the class discusses the slides.

   The International Coffee Industry has three Economic Sectors (or Production stages): The Agricultural, Industrial, and Commercial Sectors. Occupations in the service sector of the United States economy also relate to the international coffee industry. Ask students to try to identify each sector as they watch the slides.

   What is an economic sector? Types of employment in the production of coffee may be grouped according to the part of the process which is taking place. For example:

   The Agricultural Sector employs large numbers of unskilled seasonal laborers and occurs in the tropical developing countries (labor-intensive).

   The Industrial Sector (roasting and processing), is largely found in the industrialized countries, yet Brazil and Mexico have led the way in the application of freeze-drying and decaffeination technology in order to create an industrial sector in producer nations.

   The Commercial Sector involves sales and distribution in the industrialized countries. Although those occupations: wholesaler, retailer, roaster, distributor) depend on imported coffee, they are frequently now controlled by large conglomerate corporations: Procter & Gamble, Copersucar, a Brazilian multi-national corporation, and Nestle, a Swiss multi-national.

© 1990 SPICE

Follow-up Questions:

- What part of the coffee industry takes place in developing countries?
- What part of the coffee industry takes place in industrialized countries?
- What types of employment opportunities do you see?
- Where do you think that this coffee will be sold?
- How can a company try to enlarge the market for coffee?

 © 1990 SPICE

San Francisco's Early Coffee Pioneers

Based upon an article published in the California Historical Courier (August, 1982) entitled "Coffee Roasting Calfornia Style: Three San Francisco Pioneers" by Jean Sherrell, Courier editor.

It was the early 1820's. At about the time that Europeans were reading about the far-away town of Mission Dolores, English planters were setting out coffee bushes on Costa Rica's high volcanic slopes and tablelands. In the 1830's, setting the stage for the coffee trade that was to develop, first the New England whalers then the Boston traders sailed into the port of Yerba Buena (San Francisco) and ended its isolation from world trade. With the discovery of gold, San Francisco's shipping trade multiplied and more ships shuttled between San Francisco and the Isthmus of Panama, pulling into Pacific ports for fuel and supplies. These ships needed cargo, and Costa Rican coffee was convenient. Guatemala, envying Costa Rica's export situation, welcomed German and Belgian planters to its high plateaus. Thus, although most Central American beans still went to Europe, some began to reach the nearby Pacific Coast market. At that time, most of the beans that reached San Francisco originated in Central America, though some limited amounts of true "Java" and "mocha" beans did come via the East Indies from Arabia and Indonesia.

San Francisco was ripe for the coffee trade. The muddy tent-city's rapid Gold Rush population growth was changing it into the West's principal trading center. Excellent warehouse facilities and the mild, cool summer climate made the city ideal for storing green coffee beans. Finally, and just as important, the pioneers liked a good cup of coffee. Many "coffee houses" were popular in the San Francisco of the 1850's since few men cooked for themselves in their rooming houses. Of those Californians who didn't frequent "coffee houses", most of them ground and roasted their own coffee. Only a few grocery stores would roast and grind green coffee beans for their customers.

One of the first to recognize the need for someone to roast and grind coffee (especially for gold miners who were forced to drag grinding mills, roasting equipment, and green beans up to the Sierra mountains) was William Bovee. Born in Ohio, Bovee headed West to mine gold after a fire destroyed his small coffee roasting business in New York in 1848. Bad luck in California's gold fields, where one of his group gambled away money for blankets and supplies, led Bovee to hire 14-year old James Folger to help build Bovee's Pioneer Steam Coffee and Spice Mills in San Francisco. Young Folger had come West with his older brothers after an 1846 fire destroyed their livelihood in Nantucket's dying whaling industry. He only worked for Bovee for a year, though, before he headed for the gold fields too. Bovee's "Pioneer" label on the small tins of ground, roasted, pot-ready coffee proved

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

popular in San Francisco and in the gold fields. Young Folger took orders for coffee and spices while he also panned for gold.

Luck and hard work paid off for Folger when, in 1852, he made a gold strike near Wood's Creek, just outside of Sonora. He used his gold to buy a store of his own in the area which he sold two years later for a fine profit. Then he returned to San Francisco and, shortly, decided to rejoin Bovee by investing in his coffee and spice company. Folger also became the captain of a volunteer fire company and member of the Committee of Vigilance (a volunteer police force), for arson was common in lawless Gold Rush San Francisco.

Bovee had taken another partner, Ira Marden, to pay for a new building, so the firm was now Bovee and Marden. In 1859, Bovee himself went off to try hydraulic mining in the gold fields. He sold out to twenty-four year old Folger who became a full partner in the business. Marden and Folger prospered in the years before and during the Civil War by selling coffee, tea, baking powder, and extracts, such as vanilla and peppermint, up and down the West Coast. But after the Civil War there was an economic collapse. With no money to pay their debts, in 1865 Marden and Folger went bankrupt.

In the late 1860's and 1870's San Francisco had a tumultuous and unconventional business climate where speculation and bankruptcy were common. It was in this roller-coaster economic environment that Folger was able to convince his creditors that they would get their money back if he could take his roasters, mills, and bags and go back to work. And, sure enough, by 1874 he had bought out Marden and the firm of **J.A. Folger & Co.** was solvent again.

Bad luck also resulted in good fortune for the founders of another one of San Francisco's coffee roasting companies. Seventeen-year-old Joseph Brandenstein left his home in Humme, Germany in 1850 and came to California to find gold and to avoid serving in the army. Joseph was well educated, a scholar and poet as well as experienced in commerce, and arrived with a tidy sum. Shortly after he arrived in the mines, other pioneers robbed him of his "tidy sum" and he was forced to go to San Francisco penniless. After holding various jobs he formed a co-partnership with Albert and Moses Rosenbaum in wholesale leaf tobacco and cigars. Joseph had the wisdom to stock up on Virginia tobacco, and, during the Civil War when tobacco was scarce on the Union side, he did finally make the big strike that he had sought in the Gold Country. He was able to build a Victorian mansion on the corner of Gough and California streets where he raised his ten children. Three of his children, Max, Edward, and Mannie, formed the MJB Company. Mannie, as he used to tell his daughter Ruth Bransten McDougall, was in coffee from the "grounds up"—but her older brother Max actually founded the M.J. Brandenstein Company.

Max established his company after buying out John Siegfried, his partner in a company which had imported rice, tea, matting, crystal beads, sugar, lumber, and rattan furniture since 1881. His sister and brother, Mannie and Edward, joined him in 1889 after they had become partners in another company which had imported coffee, tea, and spices. They insisted that coffee be added to the basic tea and rice lines when they joined M.J. Brandenstein Company.

Other pioneers in San Francisco's coffee roasting industry came to California after the transcontinental railroad was completed. Austin and Reuben Hills migrated from Maine to California with their parents in 1873. Their father, Austin Hills, was a shipwright and master builder of a number of ferry boats used in San Francisco Bay at that time. He had commuted frequently between that city and his family in Maine. When the railroad made travel less grueling, he moved his family to San Francisco. Young Austin and Reuben held various jobs until 1878 when they formed a partnership under the name **Hills Brothers** and set up a stall in the old Bay City Market selling butter and eggs. In 1882, they bought another store which sold coffee, teas, spices, and flavoring extracts. As their business grew and other products were added, the brothers learned of a new process to vacuum pack foods. They were the first to package coffee by this method in 1900.

What has made California's coffee unique in the United States since the 1800's? Importers selected beans based not only on their appearance and the buyer's knowledge of the varieties of beans, but also on the "cup test". It was introduced in the 1880's to determine taste and quality. Since coffee cannot be tested for quality by chemical tests alone, the cup test relies upon only the senses of taste and smell. "Cuppers", who begin training at an early age to develop their senses, discovered that coffee grown at high altitudes had superior qualities. With the use of the cup test and the vacuum-packed can, "Pacific Coast Style" coffee became know for its milder, lighter, and more flavorful "medium roast."

During the twentieth century California's population grew rapidly, as did the consumption of coffee, and Folgers, Hills Brothers, and MJB thrived. At the time of the Panama Pacific International Exposition (1915), the coffee roasting companies knew that they had to increase their imports. Only 1/8 of Central American coffees were moving through the San Francisco/Oakland Bay Area. Between 1915 and 1919, after World I cut off trade with Germany, coffee imports tripled and the rich aroma of coffee became one of the city's characteristic scents along with Ghirardelli Chocolate, the vegetables in the stalls of the Produce Market, Italian salamis and meats, and the Peking Duck hanging in Chinese markets.

Today fewer roasters are located east of the San Francisco area and some companies have moved roasting plants to the suburbs in the East Bay (Union City). The three

© 1990 SPICE

pioneer companies survived through the up-and-down cycles of coffee, sugar, and rice prices. World War II brought extreme shortages, yet the companies weathered each crisis. Finally in 1963 Proctor & Gamble bought Folgers. Hills Bros. was bought by Copersucar (a huge Brazilian complex involved in coffee, sugar and industrial alcohol) which in turn sold out to the Swiss multi-national corporation Nestle. MJB was still being operated by the third generation of the Brandenstein family (now Bransten), until 1985 when it was also bought by Nestle. The San Francisco/Oakland Bay Area still ranks high among the country's green coffee importers and roasters along with New York, New Orleans, and Houston. More and more, however, coffee solids (instant coffee) and decaffeinated beans are being processed in Brazil, Colombia, Mexico, and other coffee producing nations. For well over a hundred years, the San Francisco/Oakland Bay Area has maintained its economic ties with Central and South America.

Excerpts adapted for students with the permission of the California Historical Society, 2090 Jackson Street, San Francisco, California 94109. Nov. 22, 1982

© 1990 SPICE

Discussion:

1. What world events resulted in the growth of California's international trade? In the 1800's? In the 1900's? Today?

2. During the 1800's what routes did most ships coming to California take?

3. Who were the first to start grinding and roasting coffee in San Francisco? How did luck, catastrophe and ingenuity play a part in the early coffee industry?

4. What new processes did Californians invent which increased coffee production?

5. What international changes today are having an impact on California's coffee industry?

Follow-up for discussion or writing activity:

Many international ships which transport coffee—green beans and instant coffee solids—are no longer docking at the Port of San Francisco as once was done. Instead, they are using the Port of Oakland. Also, many coffee companies are moving their production plants away from the urban centers to suburban areas.

1. What explanations can you make for these important trends?

2. What is the impact on the city of San Francisco?

3. What is the impact on the suburban areas?

© 1990 SPICE

The International Coffee Industry: Focus on California
Slide/Inquiry Discussion

1. Map of Coffee Producing Regions of the World

   Concepts: Environmental Resources
   Comparative Advantage

   On what continents is coffee grown? What countries have a temperate tropical climate?

   Coffee is produced in Asia, Africa, and Latin America at higher elevations. Use the map to locate darkened coffee growing areas between the latitudes called the Tropics of Capricorn and Cancer. These environmental resources—fertile volcanic soil, high rainfall, cool evenings, hot days—give this region an absolute advantage to produce coffee. Absolute advantage refers to a condition in which one producer can produce a product more efficiently than another.

2. Coffee, a Product of Kenya

   Concept: Export Commodity

   What is an export commodity? What African countries export coffee?

   Angola, Burundi, Cameroon, Central African Republic, Ethiopia, Ivory Coast, Kenya, Madagascar, Rwanda, Sierra Leone, Tanzania, Uganda and Zaire are the main countries which send green coffee beans abroad for sale. This coffee is an export commodity, a natural product exchanged for money abroad.

3. Coffee from Brazil

   Concept: Primary Export Commodity

   What are Latin America's primary exports?

   Main primary commodity exports of Latin America are foods, agricultural raw materials, non-fuel minerals, crude petroleum. (Forest and fisheries are two other categories). At one time Brazil's export earnings from coffee earned over half of its foreign exchange. Now Brazil exports as much soybeans as coffee.

   Today coffee accounts for only 13% of primary (agricultural and mineral) products exported by Brazil. This percentage, however, amounts to one-third of the world's coffee.

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

4. Import/Export Routes for Coffee

Concept: Trading Partners

On what continents is coffee consumed? Locate California's trading partners in coffee.

Europe, North America, and Australia are primary consumers of coffee. Brazil, Colombia, Nicaragua, Costa Rica, Haiti, Panama, Guatemala, and Honduras are the chief coffee-producing nations with Peru, and even Paraguay, as secondary coffee production areas.

California's trading partners are Guatemala, Costa Rica, Honduras, and Colombia.

5. Green Coffee Warehouse

Concept: Import Commodity

Where does California's coffee come from? What is a "port-of-entry"?

California's coffee comes from Central America and western South America. San Francisco is the third most important port-of-entry (first port in the U.S. at which imports arrive) for coffee in the United States, after New York and New Orleans. The historic ties with Central and South America are the basis for California's coffee trade today.

6. Coffee Grinding and Blending

Concept: Industrial Sector

This slide illustrates the process by which green beans are roasted, ground, and packaged is the industrial sector (or part) of the international coffee industry. Until the last 20 years little coffee processing took place in Latin America. Now freeze-drying and decaffeination plants are located in Mexico, Colombia, and Brazil.

© 1990 SPICE

7. Coffee Roaster

Concept: Capital Resources

Why is this an example of capital?

The factors of production usually include land (environmental resources), labor (human resources), and capital. The capital can be in two forms: money invested or tools, machines, and buildings. The machinery shown here is the large coffee roaster at the M.J.B. Coffee Plant, Union City, California.

8. Coffee Taster

Concept: Human Resources

What part of the production process cannot be done by machine? Why is quality control important in food industries?

Since the 1880's the best way to determine taste and aroma of brewed roasted coffee is the tasting process. In the background is a poster of the process as it took place in the early twentieth century. San Francisco coffee roasting companies developed the "cup test" and "vacuum-pack" process.

9. Coffee Packaging

Concept: Labor-intensive

Why is this an example of labor-intensive methods of production?

When machines are the most important part of the process as contrasted with what is done by manual labor then that production process is said to be capital-intensive. Fewer and fewer laborers are needed in a capital-intensive industry.

10. Coffee Packaging

Concept: Labor-intensive

Why is this an example of labor-intensive methods of production?

Since coffee is packaged by hand labor, then this part of the production process is called labor-intensive. The most labor-intensive aspects of the coffee production process occur in developing countries.

 © 1990 SPICE

11. Warehouse

Concept: Surplus

What happens to prices when there is more coffee in the marketplace than consumers are willing to purchase?

Coffee prices fall and rise on a week-by-week basis depending upon the New York Board of Trade commodity market. Export quotas exist as a means to limit excess supplies. These quotas are voluntary trade barriers (that apply to one or more countries) which influence the interaction of supply and demand for coffee. Every four years the International Coffee Agreement arranges quotas.

12. Computerized Inventory

Concept: Commercial Sector

How does this person contribute to the sales and distribution process? Why is this called the commercial sector?

Sales depend upon inventories of coffee as well as the ability to move quantities of coffee from place to place. When these steps are computerized then the sales move more smoothly and more efficiently. The commercial sector of the industry includes wholesale (sales to distributors, restaurants, hospitals, etc.) and retail (sales directly to consumers) sales.

13. Clerical Support Systems

Concept: Service Sector

Why are data processors, clerical assistants, computer technicians, and even lawyers and teachers part of the service sector of the U.S. economy?

Although people in these occupations are not directly producing a commodity or product that one can hold in your hand, their services are important and useful to everyone in the economy. The California coffee industry is part of a network of food production industries—tea, rice, seasonings, cocoa, nuts, palm oil, and more—from developing countries.

 © 1990 SPICE

Lesson Three

Coffee in Latin America Today

Objectives

Students will:

- role-play a scenario in which students weigh the pros and cons of the decision to take out food crops and put in coffee plants, as if they were partners in a Brazilian coffee fazenda.
- make generalizations about their decision and the impact upon the nation's total imports and exports ("terms of trade").
- read about "Boom and Bust" cycles which affect the coffee grower and the economies of coffee-producing countries.
- identify international organizations which either promote (GATT) or restrict (ICA) free trade between developing and industrialized nations (see Glossary).

Materials

Decision-making Activity: The Dilemma of Coffee for a Farmer in Brazil (Handout #3A)
"Boom and Bust Cycles for Coffee Producers: The Role of International Agreements" (Handout #3B)
Homework: "Understanding Terms of Trade" (Handout #3C)

Procedures:

1. Introduce the role-play activity by explaining that the best way to understand the realities behind the statistics on the chart is to "get into the shoes" of an individual in a coffee-growing country. For this activity, students are asked to get into groups of three or four partners who must make an economic decision about their large farmland in southern Brazil.

2. Before they begin, students need to understand the economic principles of price elasticity and inelasticity of demand. Price elasticity of demand refers to a situation in which quantity demanded will greatly increase or decrease with small changes in price. If a product goes up in price the demand will come down and vice versa. Price inelasticity, however, implies that demand remains constant despite small changes in price.

Therefore,

- a decrease in coffee prices due to an increase in the amount of coffee sold in commodity markets, does not necessarily result in an increase in sales because the consumers' needs remain constant.

- revenue for coffee-producing nations drops because coffee prices decline and sales do not increase.

- over-production results in lower prices and in lower revenue for coffee producers.

3. In small groups, (use Handouts 3A & 3B) students are to read the situation, consider the risks and the facts, and come to consensus for the group. If there are questions about the farm or the economic situation, then they are to write a list of questions to save for the class discussion. There should be enough information to make a decision based upon available data.

   "Boom and Bust" cycles: The Role of International Agreements (Handout 3B) is intended to be used together with the simulation, **The Dilemma of Coffee** (Handout 3A). The reading introduces these questions for further discussion:

   - What are "boom and bust" cycles?
   - How have coffee-producer nations tried to prevent wild price changes?
   - What is GATT, the General Agreement on Trade and Tariffs?
   - What is the International Coffee Agreement? (See glossary of Concepts and Terms)
   - Does the International Coffee Agreement prevent "boom and bust" cycles?

4. Record each group's decision and reasons for their decision on the board. Also list any additional questions and assumptions the group wishes to make. What have most of the groups decided to do: grow foodstuffs or coffee?

5. Here are some questions to encourage students to make generalizations:

   - If more farmers decide to grow coffee, what will happen in the economy of the nation? of the world?
   - What will happen to the price of coffee world-wide?
   - What will happen to the price of wheat, corn, and soybeans?

© 1990 SPICE

- What will happen to the national food supply if more farmers choose to grow coffee?
- How will the poor be affected by the decision of the farmers?

6. In order for students to make the connections between their decision-making experience and the problems of nations which are also caught in the dilemma of coffee production (an export agriculture, versus agriculture for domestic consumption) the following reading is provided to explain the economic concepts: **"Boom and Bust" Cycles for Coffee Production: the Role of International Agreements** (Handout 3B).

7. Another major problem that confronts many nations and especially developing nations is the problem of "Terms of Trade."

   "Terms of Trade" is an economic concept which refers to the rate at which exports trade for imports as if barter were conducted. Since "terms of trade" is a ratio of average prices, it is really an index which tracks changes from an arbitrary base year, like the Consumer Price Index does.

   The concept was emphasized in the 1960's by a Latin American economist, Raul Prebisch (Economic Conference on Latin America) to describe the diminishing value of developing countries' prices in the face of high prices for manufactured goods from industrialized nations.

   Understanding Terms of Trade (Handout 3C) will introduce the concept with some examples from Latin America. The reading and the follow-up discussion will provide students with the background to understand the next lesson, "Coffee in the International Economy Today."

The Dilemma of Coffee: A Decision-Making Activity About Brazil

The Situation

You and your partners own a large, successful farm about 60 miles southwest of Sâo Paulo. You have been growing wheat, corn, and soybeans—three crops that are basic to the Brazilian diet. The government is willing to provide loans and agricultural consultants as incentives for more commodity crops and to encourage a diverse agricultural economy.

Some of your neighbors grow coffee and they urge you to join them. They admit that in the past, coffee prices have jumped up or down with little warning. Usually the price has been too low. Yet coffee is still popular in colder regions in the world and prices are high now. Despite the fact that the government is eager to have farmers increase diversified production, international debt has resulted in a national shortage of foreign currency, which is earned when coffee is sold abroad. The local banker is a relative of yours and may offer a loan in return for a share in the profit expected from large coffee sales.

Here is a fact sheet. Study it and then decide:
SHOULD YOU AND YOUR PARTNERS TURN HALF OF YOUR CROPLAND OVER TO COFFEE TREES?

Fact Sheet

1. A serious frost last year destroyed thousands of Brazil's coffee trees. There will be less to sell abroad.

2. Demand for coffee is increasing in Europe and the United States. This will keep prices high.

3. Japan, too, has become a nation of coffee drinkers. Between 1970 and 1982 Japan has increased its coffee imports from 81 to 186 thousand metric tons of coffee*.

4. Your land is perfect for coffee. The hills range from 1,000 to 3,000 feet above sea level. The temperature in the growing season ranges from 60 to 70 degrees Fahrenheit, and the rainfall of 50 inches comes at the right time.

* Yearbook of International Commodity Statistics, United Nations, N.Y 1984

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

Risk Sheet

1. It takes 4-5 years for a coffee tree to produce coffee beans.

2. One tree will yield enough beans for a one-pound can of coffee each season.

3. You are new at coffee growing and must rely upon an unskilled, uneducated labor force as coffee must be handpicked.

Conclusion

As a group considering what makes the most business sense, decide what is in your best interest.

Adapted from materials developed at Global Perspectives in Education, 218 East 18th Street, New York, NY 10003, 1984. Adapted with permission.

© 1990 SPICE

"Boom and Bust" Cycles for Coffee Producers: The Role of International Agreements

Coffee, like oil, cocoa, rubber, tin, sugar, and other natural commodities, is usually produced and traded through the market system of capitalism. In a capitalist society, the commodity production system, as well as industrial and financial firms, are privately owned by large corporations. These privately owned corporations create profits which, in turn, increase spending on equipment and new businesses. This type of spending employs more people who spend more and want more goods and services. As this demand goes up, the economy is able to produce more and employ more. Thus, the Gross National Product, or GNP (total value of goods and services produced in a nation in a year), rises. This type of business cycle is called a "Boom."

The opposite also occurs: earnings fall; fewer businesses are started; little equipment is purchased; few jobs are created; unemployment rises; and the overall growth of the economy diminishes. This is called a "Bust" business cycle. These cycles affect both industrialized and developing countries which trade and produce in a capitalist society.

The capitalist coffee-producing nations have traditionally faced this problem of "Boom and Bust" cycles. These business cycles can be explained with an example from the international coffee industry:

1. High coffee prices increase profits which are spent on bringing more and more land into coffee. More and more workers are employed (seasonally) as the economy grows during the "Boom."

2. Since opportunities are strong, coffee growers invest in higher producing coffee plants which increase long-term coffee supplies when they are harvested in 4-5 years.

3. Within five years coffee production around the world has risen, which results in a surplus of coffee. Over- supply means that prices drop, since, theoretically at least, consumers don't demand more coffee even when prices are low. The amount people taste does not change. Consumers, in other words, drink the same amount of coffee despite price fluctuations.

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

4. With low prices, earnings fall, which means coffee-producing nations earn less and less foreign exchange. The dwindling profits create the "Bust" business cycle conditions.

5. The downturn continues with high unemployment, little investment, and slow economic growth until a frost, crop disease, or other disaster would cause a shortage of coffee, driving prices up and starting the cycle over again.

Developing countries whose economies are largely dependent upon one commercial agricultural or mineral commodity are especially harmed by the changeable economic cycles of capitalism, since they rely on only one product or resource for their trade. Inflation poses another hazard for their economies. Inflation is a term that describes a persistent rise in prices without an accompanying increase in product quality. Although commodity prices have fallen, prices for other goods and services have risen dramatically. Especially in countries which limit the amount of their commodities exported, world prices rise because output is limited. Coffee-growing countries have tried to limit coffee supplies during the last thirty years in order to keep prices stable, earnings high, and prevent the extremes of "Boom and Bust" cycles.

In the 1940's before World War II, attempts were made by Brazil and other coffee-growing nations in both Africa and Latin America to join together to limit coffee exports on a country-by-country voluntary basis. Early attempts were made by producer organizations which functioned as a cartel, a group of commodity producers, which attempted to determine world prices by limiting supply. This was done to end the "bust" part of the cycle for commodity exporting countries when their earnings fell and their economies suffered.

In the years following World War II, developing nations wanted to improve their opportunities to export natural commodities and manufactured goods and to import manufactured goods freely without trade barriers such as tariffs, duties, or import quotas. In 1948, a United Nations conference resulted in GATT, General Agreement on Tariffs and Trade, in which many nations supported the gradual elimination of import tariffs and "favored nation" agreements which were unfair to other nations. The fact that many nations—developing and developed—could begin to discuss and recommend economic cooperation was important. That agreement led the way for many other multilateral (many-sided) international economic organizations, one of which is the International Coffee Agreement (ICA).

© 1990 SPICE

Nations which are coffee-exporting economies were eager to begin international discussions on their problems of "boom" and "bust" cycles. Earlier, small regional groups (in Africa, South America, and Central America) had met to discuss common problems. Yet in the years which followed World War II, even consumer nations such as the United States began to see the need for developing nations to maintain stable prices for their commodities.

In 1962, the first agreement was signed when producer and consumer nations finally agreed to restrict the amount of coffee that would be exported. In order to prevent over-production or "gluts," each producer nation would abide by export quotas: voluntary trade barriers which nations established through a forum or discussion. Other restrictions to free coffee trade such as import tariffs (taxes on entry in a country), internal taxes, and preferential agreements were opposed. (Yet many African nations continue to trade with their former European "mother country." As former colonies they were tied by historical relationships with Europe, formalized in an agreement called the Lome (low-may) Convention.

Every six years, representatives of 50 producer and 21 consumer nations meet as members of the International Coffee Association to discuss and vote on the coffee export quotas. Member nations receive votes based upon their portion of international coffee trade. Consequently, Brazil is the most influential coffee-producing nation. Producer nations attempt to gain higher export quotas so they can earn increased revenue and more foreign exchange. Thus, through the International Coffee Agreement the supply of coffee is limited in an attempt to control prices and revenues.

Does the agreement work? As with all negotiated agreements, member nations and non-member nations are not always pleased with the result. Coffee producers generally feel that prices remain too low while consumers are pleased with stable prices. Yet in 1977, a frost in Brazil and a war in Angola reduced the international coffee supply, driving coffee prices sky high. Consumers, angered by the high prices and unpredictable coffee supplies, began to write their congressmen, boycott coffee, and/or hoard what coffee they could buy. In that case, a time of extremely low supply and high prices, the commodity agreement was unable to react to a crisis.

Nations that are not members of the International Coffee Association want to export more coffee in an attempt to break into the restricted international coffee market. From the

perspective of non-ICA members, the International Coffee Agreement acts as a barrier to free trade. Smuggling and illegal export stamps are two ways that non-member nations try to export their products.

The debate on commodity agreements is an important part of the discussion of international trade, since developing nations and consumers are both affected. Multilateral agreements like the International Coffee Agreement have existed in the capitalist world market system for several decades now.

Here are some key issues for you to consider as you evaluate the advantages and disadvantages of International Commodity Agreements like those which exist for tin, rubber, sugar, and coffee. Use your knowledge from this unit to discuss:

A. Does the agreement promote the fullest use of productive resources (environmental, human, and capital)?

B. How does the agreement affect groups within both consuming and producing countries? Who is better or worse off?

C. Is it necessary for producer countries to maintain stable prices in order to best use their resources?

D. What is in the best interest of each party in the multilateral negotiation?

Adapted from Joint Council on Economic Education. Part I: A Framework for Teaching Economics: Basic Concepts, A Master Curriculum for the Nation's Schools, 1977

Understanding Terms of Trade

Most economists agree that trade helps all countries that engage in it. Latin America, it has been explained, has always played an important role in world trade as a supplier of agricultural and mineral commodities. Yet historical relationships were not always based upon interchange between equal trading partners. Developing countries such as those found in Latin America have economies which are significantly less industrialized and/or service oriented. Formerly they were colonies of other countries. Their participation in the world market began during the colonial era. As colonies, their economic development was for the benefit of the ruling nation. Since ruling nations needed raw materials to fuel their own industrial development, labor-intensive agricultural or mineral extraction industries developed during the colonial period, and continued to be carried on after each nation became independent.

At the same time, new economic activities began to develop in these countries. Small industries, such as textiles, began to produce goods for internal consumption. Later, other industries were introduced in an effort to reduce the amount of goods that developing countries needed to import. Yet, all the while, the exchange of primary raw materials continued to be a major export industry. Many Latin American countries export only one major agricultural or mineral commodity. Thus, prices for this commodity on the international market (see Glossary) have a major impact upon the amount of foreign currency available to developing nations.

The reliance upon one major export crop by a country is called monoculture. Such countries are usually found in Africa and Latin America. International organizations exist which offer loans and agricultural advisors to encourage these countries to grow a variety of crops. Nonetheless, even nations like Brazil—which has been able to diversify its agricultural industry from frozen orange juice to soybeans to frozen chicken—still rely upon coffee as a key agricultural commodity for 10.5% of its total exports.

Developing countries that rely upon export of one or two commodities face a terms of trade problem. "Terms of Trade," refers to the difference between the price paid for imports and the price received for exports. Because prices of goods imported by developing countries are rising (tractors, computers), while prices for commodities

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

exported by these countries stay stable or drop (coffee), each year the amount of foreign exchange purchased by their commodity sales is less. This has been true for many countries which rely on natural commodities—cocoa, cotton, sugar, bananas, copper, tin, iron, bauxite—to earn foreign exchange abroad. Prices of oil, manufactured goods, and technology have increased while commodity prices have declined.

The need to borrow foreign capital (money) to buy equipment and technology to "build up" the local industry has created a vicious cycle of debt for nations which receive less and less foreign exchange for their commodities and must pay higher and higher prices for fuel, technology, and manufactured goods.

Questions for Discussion:

- Why did Latin American countries develop agriculture and mining industries?
- What does the word monoculture (one-crop economy) refer to?
- What is a "terms of trade" problem?

 © 1990 SPICE

Lesson Four

Coffee in the International Economy Today

Objectives

Students will:

- understand the concepts: "terms of trade," "comparative advantage," and the relationship of export goods to import goods for a nation.
- examine the history of Latin American economic relations with the rest of the world.
- consider the role of coffee, and other export commodities, for developing nations in the current international debt crisis.

Materials

International Trade and Debtor Nations in Latin America, A Reading (Handout 4A)
Almanac or recent encyclopedia
Newspapers and news magazines

Procedures

1. Introduce the concept "terms of trade": the difference between the aggregate price paid for imports and the aggregate price received for exports. Ask students to discuss the meaning of this concept and to consider what are the components of a nation's terms of trade?
   - total exports
   - total imports
   - import and export trading partners
   - foreign exchange balance

2. Discuss the question: Why is foreign exchange so important? When the dollar rises, foreign goods and services become less expensive for the consumer. Yet for the coffee producer, the amount of revenue declines. With a product such as coffee, the concept of "price inelasticity of demand" explains why farmers get little more revenue even when the price rises. Consumers' buying patterns do not change when prices drop. The economic concept of price inelasticity of demand means that a price decrease results in such a small increase in quantity demanded, that revenue (earnings) falls.

© 1990 SPICE

3. Foreign exchange is necessary to pay for all international financial transactions which the country needs to carry out:

   - repayment of debt and interest on loans
   - import purchase of fuels, and necessary manufactured goods which the country does not produce itself efficiently or cheaply
   - purchase of consultation on technology which the country does not possess within its economy
   - finally, the money credit, and capital to participate in an international economy based upon exchange (trade)

4. Using almanacs, or encyclopedias, and statistical indexes, students in small groups should choose one coffee-producing nation and look up its trading partners, types of imports, types of exports, and the balance of trade (exports minus imports) which the country has.

   As a class, consider the situation of coffee-producer nations and then compare that situation to industrial nations such as Japan and Western European countries which may have a positive balance of trade. Here is a possible grid to place on the board:

Country	Total Imports	Trading Partners	Total Exports	Balance of Trade (+/-)

5. After students have read **"International Trade and the Debtor Countries of Latin America"** (Handout 4A), ask the students to summarize their understanding of the situation in an opinion paper.

   - Why do you think that developing countries borrowed abroad?
   - Why do you think that banks loaned so much?
   - What world events hurt the ability of developing countries to repay loans?
   - List some international organizations which are key participants in the international balance of trade.

© 1990 SPICE

6. Here are some follow-up questions for the debriefing:

   - Since World War II, what economic trends existed among developing countries?
   - What is the state of import/exports between industrial nations and developing nations today?
   - How can international trade affect the debtor nations?
   - What other individuals or international organizations have a role in the foreign debt crisis or developing nations?

7. Ask students working in small groups to gather articles and magazines on the current foreign debt crisis. They might choose just one country in Africa, Asia, or Latin America to exemplify the impact of the crisis.

8. Finally, students might take surveys of their parents, friends, and neighbors to find out U.S. attitudes toward developing countries' debt problems.

   - What is your understanding of the nature of the developing countries' debt problems?
   - What are the perspectives on the causes and solutions to this situation?
   - Who or what organizations might correct the situation?
   - What solutions are offered in the news or in your readings?

© 1990 SPICE

9. **Homework Assignment (OPTIONAL)**

Below are some of the important institutions whose effect in the international debt crisis should be considered. Have students (individually or in small groups) research the role of one of the following:

- International Banking Community (United States and Europe)
- Latin American Political Leaders
- Political Leaders of Industrialized Countries
- Organization of American States (OAS)
- United Nations Economic Agencies
- The International Monetary Fund (IMF)
- The World Bank
- Inter-American Development Bank
- U.S. Federal Reserve Bank

Refer to the list of resource organizations in the background readings for students to write for information on international debt. Each organization will have a different perspective on the nature and solutions to the critical international situation.

© 1990 SPICE

INTERNATIONAL TRADE AND DEBTOR NATIONS IN LATIN AMERICA

The historic role of Latin American countries in international trade has been as suppliers of minerals and agricultural products. First, these commodities were traded to Spain and Portugal, and later to England and France for manufactured goods: clothing, household items, tools, and equipment which were not produced in those Latin American countries.

Slowly, small industries, especially in textiles, were developed to produce clothing and items that were once imported. Yet the major industries remained agriculture and mining. Thousands of unskilled workers were employed for low or non-existent wages, in mines on plantations, called haciendas.

Even after Latin America became independent from Europe, the export of primary commodities both agricultural and mineral—to Europe and, after World War I and II, the United States, remained the main source of Latin America's trade. Yet, within each country or region another system of trade existed: the exchange of goods on a local level without an elaborate financial exchange. This second economy also had its own market in which prices were determined by supply and demand.

This market was where foodstuffs and other goods produced in Latin America for Latin Americans were exchanged. Clothing, foods, household items, and more were produced in small factories or in "cottage" industries—within a home—for sale within the country.

Yet on an international level, Latin America relied upon the export of natural commodities for over 77% of total exports as recently as 1966. Here are the main categories of exports:

Non-Fuel Metals	Fuels	Agriculture	Fishing	Forest Products
copper	petroleum	coffee	shrimp	pulp
iron ore		cocoa	tuna	plywood
lead		sugar	shellfish	paper
zinc		bananas		
tin		wheat		
		beef		
		cotton		

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

These are the commodities in which some Latin American countries possess an absolute advantage. On the bases of geography and natural resources, various Latin American countries are able to produce these products more efficiently and cheaply than other countries. (Note: this does not mean that those countries involved are necessarily the best in the entire world, only that they can successfully export at world market prices.) In addition, Latin America could have a comparative advantage in processing industries (e.g., coffee roasting) since it would be a relatively productive use of labor and capital. Competing uses of labor and capital in countries such as the United States makes such industries less desirable. Changes in technology, investment and skills influences a country's comparative advantage.

Today, Latin America's trade is critical to earn foreign currency to purchase items in which Latin America countries do not possess an absolute advantage in production. The economies in these countries, called developing or less developed countries (LDC), depend on capital resources—money and the equipment money purchases—from abroad. In return, developing countries produce and export more and more raw materials as industrialized nations' production declines.

Especially since World War II, the following characteristics have existed among developing countries:

- more and more export of raw materials
- purchase of more capital goods and manufactured materials
- more and more foreign borrowing to encourage the increase in industrial production

The more human and environmental resources the country has, the more it imported capital to expand production.

Today the burden of foreign debt has made the interconnectedness of the international economies even more obvious because of the amount of money Latin American countries owe to international banks. One economist, Clark L. Reynolds, estimates that the debt is approximately $100 for each man, woman, and child in the United States. Since foreign exchange currency is in demand to repay loans and interest, almost all of the money developing countries earns abroad is used to repay only the interest on the loans! As interest rates rise, borrower nations in Latin America who owe a combined total of $430 billion find they owe $100 million more dollars in additional interest rates.

How can this situation improve? How can loans be repaid and the economic standard of life of millions of people in developing countries be improved? Are both goals in contradiction?

© 1990 SPICE

The expansion of international trade is important for both developing and industrialized countries. Here are some reasons why:

1) Exports from industrialized countries to LDCs account for almost 1/3 of total exports and 6% of the national income of industrial countries.

2) Developing countries need to further expand their exports of manufactured goods and commodities by 6-7% each year.

3) Continued open trade policies will further expand trading possibilities so that:

- LDCs will be able to gain a trade surplus
- Industrialized countries will be able to export and improve their trade balance
- The growth in trade will generate the capital flows needed to repay debt and purchase further goods

One area in which Latin American countries might benefit is in the area of commodity prices, such as the price of coffee. A World Bank economist, and head of the Bank's external debt division, Nicholas Hardy, suggests one solution:

"Just a two-cent change in commodity prices does more for a developing country than aid...while one hears that countries borrowed imprudently, I don't think they did...They couldn't have anticipated that U.S. monetary policies and deflation in other countries would bring interest rates to unremembered levels for two years, that lack of demand would drive commodity prices to their lowest level since World War II, that oil would be affected like other commodities, that protectionism would re-emerge and that trade would stagnate for two years in a row."

(Cited in "World Bank Offers Two-Cent Solution," a special report on the IMF Conference, Sept. 28, 1983. Times of the Americas p. 15).

Commodities like coffee, oil, sugar, and bananas which have been introduced in these lessons remain a vital part of Latin America's economic production. In times of crisis, the component of international economic trade again is significant for Latin American nations and nations in Asia and Africa.

This is only one solution to the problems facing Latin American nations. According to this viewpoint, Latin America should encourage export commodities—especially in agriculture. This would generate foreign exchange to repay foreign debt and purchase manufactured goods.

© 1990 SPICE

Other viewpoints oppose export agriculture and point to the importation of foodstuffs as a disadvantage. The need to import food, the problems of distribution of food within Latin America (who gets more and who gets less) and the problems of food production (what land is used to produce for export and what land is used to produce foodstuffs to feed the nation's population) are important criticisms of export agriculture for developing nations.

The debate on economic policy continues, yet trade continues to be thought of as an essential way that developing countries and industrialized nations will gain foreign exchange in order to participate in the international exchange of goods. The solution to the current debt situation will draw upon the mutual efforts of all nations of the world. Both industrialized and developing nations' balances of trade are affected by the current crisis.

Follow-Up Questions

1. Why did Latin American countries develop agriculture and mining industries?

2. What does the word "monoculture" mean?

3. What is a "terms of trade" problem?

4. Why have commodity prices today affected the developing nations which owe money to foreign banks?

5. Use Brazil as an example of a nation struggling to overcome a "terms of trade" problem.

© 1990 SPICE

Trading Coffee Information: A Simulation

Objectives

Students will:

- understand the concepts "absolute advantage," "comparative advantage," and "scale economies."
- locate producer and consumer nations on a world map.
- learn the history of California's international trade with Latin America through a case study of San Francisco's coffee industry.
- become sensitive to the interconnections between local coffee consumption and the people in developing countries.

Materials

Handout #5A: Teacher Directions
Handout #5B: Questions for Team A
Handout #5C: Questions for Team B
Handout #5D: Questions for Team C
Handout #5E: Teacher's answers
Handout #5F: World map
Handout #1B: Map of Export/Import Routes for Coffee
Handout #2A: Early Coffee Pioneers
Handout #3B: "Boom and Bust Cycles for Coffee Producers"

Time

Two to four class periods

Introduction

The following activity may be used in conjunction with the other lessons in this unit or it can be used in lieu of Lessons Two and Three. In either case you should note that Lesson Five was prepared for students who are used to small group work. If your class has not participated in small group activity, Lesson Five would still be beneficial, but you would need to spend more time in preparing your students for such an exercise.

Please note that debriefing this activity is a crucial part of the lesson; allow one or two days for debriefing.

© 1990 SPICE

Suggested Procedures

1. Begin by asking students to think about how many (and in what capacities) people are involved in a student's drinking one cup of coffee. You might give students the choice of doing one of the following:

   a) drawing a picture or map of what it takes to get one cup of coffee consumed in the United States. **Maps could include the people picking the coffee beans, transporting the beans by truck, ship, truck and railroad from Latin America to the United States into warehouses, grocery stores, restaurants, etc.**

   b) making a list of the number of occupations involved in a student's drinking one cup of coffee. **Students might include occupations that relate directly (picking and shipping the beans), to those that relate indirectly (occupations that involve making the bags that hold the coffee, or making the cups that the coffee is consumed from, etc.).**

   Point out to students that many populations of people are interconnected through even one person drinking a cup of coffee.

2. The following simulation exercise teaches students about negotiation, the coffee industry, and absolute and comparative advantage. Divide students into small groups—three small groups per game. If you have a large class you may need to have two games taking place concurrently. Each team should have the same number of people. If this is impossible, team A should take the extra person. Optimally, each group should have three or four people.

   Tell students that they will be given a packet containing a list of questions, readings and a map. The goal of this activity is to correctly answer each question in the quickest time possible. Points will be awarded for each answer. The team(s) with the most points at the end of the activity is declared the winner. Although each team will have the same amount of time to answer the questions, inequities exist in available resources. In other words, some teams will have more resources than others, and will therefore more easily be able to answer the questions.

   Two mandatory negotiating periods will be arranged so that teams have opportunities to bargain for work strategies, bargain for answers, not bargain at all, or arrange some other kind of tactic to help or compete with each other. Each mandatory negotiating period will last for 3 minutes. Mandatory negotiating periods require negotiators from each team to be

© 1990 SPICE

present at the negotiating table. Teams may continue negotiating after the three minutes or at other times as well.

Each team will need to designate 1 negotiator, 1 runner, and 1 scribe. Other students will be readers. The negotiator needs to attend all negotiating meetings and discuss transactions with negotiators from other teams. The runner is the "go-between" the team members and the negotiator. (Therefore, the negotiator does not need to leave the negotiating table.) The scribe writes down the answers on the team answer sheet. Readers skim the readings for correct answers. All team members could be readers.

Note that team A is the team with absolute advantage. Teams B and C have comparative advantage. The notion of "scale economies" is also operative: another reason for international trade is to maximize specialization. (Do not tell students anything about these concepts until the debriefing period.)

Points will be awarded for each correct answer, and for answering the questions correctly within a given amount of time. You might choose to lengthen the time, depending on your students' grade level, interest, and level of expertise.

- For each correct answer receive one point.
- For answering the questions correctly in 10 minutes receive 10 points.
- For answering the questions correctly in 15 minutes receive 7.5 points.
- For answering the questions correctly in 20 minutes receive 5 points.

When a team declares its answers complete, you will look over their answers and award them points for each correct answer and the bonus for finishing within a given time period. Tell students, however, that once you check their answers, they are finished. They cannot attempt to change incorrect answers. Also, if any answer is wrong, they do not receive bonus points.

Distribute appropriate packets to each team. (Ideally, each student should have his or her own set of materials, but this is not essential in order for the activity to work.)

© 1990 SPICE

Team A's packet should contain

- **Handout #5B: Questions for Team A**
- **Handout #5F: World Map**
- **Handout #1B: Map of Export/Import Routes for Coffee**
- **Handout #2A: Early Coffee Pioneers**
- **Handout #3B: "Boom and Bust Cycles for Coffee Producers"**

Team B's packet should contain

- **Handout #5C: Questions for Team B**
- **Handout #2A: Early Coffee Pioneers**
- **Handout #3B: "Boom and Bust Cycles for Coffee Producers"**

Team C's packet should contain

- **Handout #5D: Questions for Team C**
- **Handout #1B: Map of Export/Import Routes for Coffee**
- **Handout #2A: Early Coffee Pioneers**
- **Handout #3B: "Boom and Bust Cycles for Coffee Producers"**

Have students check their packets of materials.

Allow students 3-5 minutes to think about their negotiating strategies.

Begin the first mandatory negotiating period. Call time after three minutes.

Give students about 7-10 minutes to work on their answers.

Begin the second mandatory negotiating period. Call time after three minutes.

Give students the remaining time to work on their answers.

When a team declares its answers complete, remind them that once you check their answers, they are finished. They cannot attempt to change incorrect answers. Also, if any answer is wrong, then they do not receive points for finishing within the allotted time period.

Check over the answers of teams as they finish.

3. Debriefing this activity is crucial. First, debrief the events of the simulation. What did each team decide to do at the beginning of the game? What happened? Was trading advantageous to each team or not? Why? Which team or teams won?

© 1990 SPICE

Depending on the outcome of the activity, ask students one of the following: If team A ***did*** negotiate with other teams, why did team A negotiate with other teams given that it didn't need to? If team A ***did not*** negotiate with other teams, could there be an advantage for team A to negotiate with other teams even though it didn't really have to? **After some discussion, point out that team A had an "absolute advantage" over the other teams. Team A had all the questions, answers, and appropriate maps. Teams B and C lacked some resources; however, these teams had a comparative advantage in their offering of labor. In other words, between "labor" and "resources" teams B and C had a comparative advantage in labor.**

Team A could win the game without help from other teams. Nevertheless, team A could obtain answers more quickly by using the labor of other teams. The idea of "scale economies" applies here. All teams benefit by specializing in specific tasks and sharing their outcomes. Whereas countries that work in isolation reproduce labor taking place elsewhere, countries that specialize in certain products and trade their goods gain by international trade. The simulation is set up so that all teams benefit by trading.

If you have used this lesson in lieu of other activities in this unit then you will want your students to read the material again more slowly and with an aim for comprehension of the historical and economic content.

© 1990 SPICE

Teacher Directions

Each team will be given a packet of information. A complete packet contains a list of questions, a packet of readings, and two maps. The goal of this activity is to answer each question correctly in the quickest time possible. Points will be awarded for each answer (see below). The team(s) with the most points at the end is declared the winner. Although each team will have the same amount of time to answer the questions, inequities exist in available resources. In other words, some teams will have more resources (or information) than others, and will therefore more easily be able to answer the questions.

Two mandatory negotiating periods will be arranged so that teams have opportunities to bargain for work strategies, bargain for answers, not bargain at all, or arrange some other kind of tactic to help or compete with each other. Each mandatory negotiating period will last for 3 minutes. Teams may negotiate at any time, and they must have a negotiator present at the negotiating table (even if they do not negotiate).

Points: Points will be awarded for each correct answer and for answering the questions correctly within a given amount of time. There are 24 questions in total (question 14 has the same value as ten questions).

For each correct answer receive 1 point. Your team could receive 24 points for answering every question correctly.

For answering the questions correctly in 10 minutes your team receives 10 points.

For answering the questions correctly in 15 minutes your team receives 7.5 points.

For answering the questions correctly in 20 minutes your team receives 5 points.

© 1990 SPICE

TEAM A

Each correct answer is worth points. There are fourteen questions (question 14 has the same value as ten questions). The team(s) with the most points at the end of the activity is declared the winner. NOTE: EACH TEAM BEGINS WITH A DIFFERENT AMOUNT OF RESOURCES. (RESOURCES = QUESTIONS AND MAPS AND READINGS TO ANSWER QUESTIONS.) SOME TEAMS ARE MISSING QUESTIONS OR MAPS NEEDED TO ANSWER THE QUESTIONS. Write your answers on this page.

1. Name five coffee growing nations.

2. Name one of the two South American countries that exports to San Francisco.

3. In 1962 the International Coffee Agreement was signed when

   a) producer and consumer nations agreed to restrict the amount of coffee to be exported through export quotas.
   b) producer and consumer nations agreed to restrict the amount of coffee to be imported through import quotas.
   c) producer and consumer nations agreed to impose import tariffs.

4. Who was the first to vacuum pack coffee?

5. From the perspective of non-ICA members, the International Coffee Agreement acts

   a) in accordance with their own (non-ICA) business interests
   b) like an exclusive club
   c) as a barrier to free trade
   d) in accordance with Keynesian economic policies

6. Which of the following is the most influential coffee producing nation?

   a) Colombia
   b) Brazil
   c) Angola
   d) Guatemala

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

7. True or false: Joseph Brandenstein left his home in Germany specifically to begin a coffee house and roasting company in San Francisco.

8. In the 1880's San Francisco's coffee importers introduced the "cup test" to

   a) weigh green coffee beans
   b) test the aroma of coffee
   c) determine the taste and quality of coffee
   d) scientifically measure the chemical balance in brewed coffee

9. Nestle bought which San Francisco coffee company?

10. Theoretically, consumers drink

    a) more coffee when prices drop
    b) more coffee when prices rise
    c) the same amount of coffee despite fluctuation in prices
    d) more coffee in spring than in autumn

11. What is the Lome convention?

12. True or false: James Folger worked for Moses Rosenbaum and Ira Marden before beginning his own company.

13. Coffee became a popular beverage in San Francisco during the 1850's due to all of the following except:

    a) a cold rainy climate
    b) the arrival of the 49's
    c) warehouse facilities to store green coffee beans
    d) the invention of the percolator

14. Place a "0" by coffee-consuming nations and an "X" by coffee-producing nations. Then (on the back of this handout) list each nation under the appropriate heading: SOUTH AMERICA, AFRICA, ASIA, CENTRAL AMERICA, OCEANIA.

Bolivia	Ivory Coast	India	Malaysia
Japan	Indonesia	Peru	Australia
El Salvador	Colombia	Madagascar	Chile
Philippines	South Africa	Kenya	Thailand
Nicaragua	Guatemala	Ethiopia	Vietnam

TEAM B

Each correct answer is worth points. There are fourteen questions (question 14 has the same value as ten questions). The team(s) with the most points at the end of the activity is declared the winner. NOTE: EACH TEAM BEGINS WITH A DIFFERENT AMOUNT OF RESOURCES. (RESOURCES = QUESTIONS AND MAPS AND READINGS TO ANSWER QUESTIONS.) SOME TEAMS ARE MISSING QUESTIONS OR MAPS NEEDED TO ANSWER ALL THE QUESTIONS.

1. Name five coffee growing nations.

2. Name one of the two South American countries that exports to San Francisco.

10. Theoretically, consumers drink

    a) more coffee when prices drop
    b) more coffee when prices rise
    c) the same amount of coffee despite fluctuation in prices
    d) more coffee in spring than in autumn

11. What is the Lome convention?

12. True or false: James Folger worked for Moses Rosenbaum and Ira Marden before beginning his own company.

13. Coffee became a popular beverage in San Francisco during the 1850's due to all of the following except:

    a) a cold rainy climate
    b) the arrival of the 49's
    c) warehouse facilities to store green coffee beans
    d) the invention of the percolator

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

TEAM C

Each correct answer is worth points. There are fourteen questions (question 14 has the same value as ten questions). The team(s) with the most points at the end of the activity is declared the winner. NOTE: EACH TEAM BEGINS WITH A DIFFERENT AMOUNT OF RESOURCES. (RESOURCES = QUESTIONS AND MAPS AND READINGS TO ANSWER QUESTIONS.) SOME TEAMS ARE MISSING QUESTIONS OR MAPS NEEDED TO ANSWER ALL THE QUESTIONS.

3. In 1962 the International Coffee Agreement was signed when

   a) producer and consumer nations agreed to restrict the amount of coffee to be exported through export quotas.
   b) producer and consumer nations agreed to restrict the amount of coffee to be imported through import quotas.
   c) producer and consumer nations agreed to impose import tariffs.

4. Who was the first to vacuum pack coffee?

5. From the perspective of non-ICA members, the International Coffee Agreement acts

   a) in accordance with their own (non-ICA) business interests
   b) like an exclusive club
   c) as a barrier to free trade
   d) in accordance with Keynesian economic policies

6. Which of the following is the most influential coffee producing nation?

   a) Colombia
   b) Brazil
   c) Angola
   d) Guatemala

7. True or false: Joseph Brandenstein left his home in Germany specifically to begin a coffee house and roasting company in San Francisco.

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

8. In the 1880's San Francisco's coffee importers introduced the "cup test" to

   a) weigh green coffee beans
   b) test the aroma of coffee
   c) determine the taste and quality of coffee
   d) scientifically measure the chemical balance in brewed coffee

9. Nestle bought which San Francisco coffee company?

© 1990 SPICE

TEACHER'S GUIDE

1. Name five coffee growing nations. **Brazil, Colombia, Angola, Kenya, Ivory Coast, Indonesia, Malaysia**

2. Name one of the two South American countries that exports to San Francisco.: **Brazil, Colombia**

3. In 1962 the International Coffee Agreement was signed when

   a) producer and consumer nations agreed to restrict the amount of coffee to be exported through export quotas.
   b) producer and consumer nations agreed to restrict the amount of coffee to be imported through import quotas.
   c) producer and consumer nations agreed to impose import tariffs.

4. Who was the first to vacuum pack coffee? **Hills Brothers**

5. From the perspective of non-ICA members, the International Coffee Agreement acts

   a) in accordance with their own business interests
   b) like an exclusive club
   c) as a barrier to free trade
   d) in accordance with Keynesian economic policies

6. Which of the following is the most influential coffee producing nation:

   a) Colombia
   b) Brazil
   c) Angola
   d) Guatemala

7. True or **false**: Joseph Brandenstein left his home in Germany specifically to begin a coffee house and roasting company in San Francisco.

8. In the 1880's San Francisco's coffee importers introduced the "cup test" to

   a) weigh green coffee beans
   b) test the aroma of coffee
   c) determine the taste and quality of coffee
   d) scientifically measure the chemical balance in brewed coffee

© 1989 by the Board of Trustees of the Leland Stanford Junior University for SPICE.

9. Nestle bought which San Francisco coffee company? **MJB**

10. Theoretically, consumers drink

    a) more coffee when prices drop
    b) more coffee when prices rise
    c) the same amount of coffee despite fluctuation in prices
    d) more coffee in spring than in autumn

11. What is the Lome convention? **An agreement which binds African countries to their former European mother country.**

12. True or **false**: James Folger worked for Moses Rosenbaum and Ira Marden before beginning his own company.

13. Coffee became a popular beverage in San Francisco during the 1850's due to all of the following except:

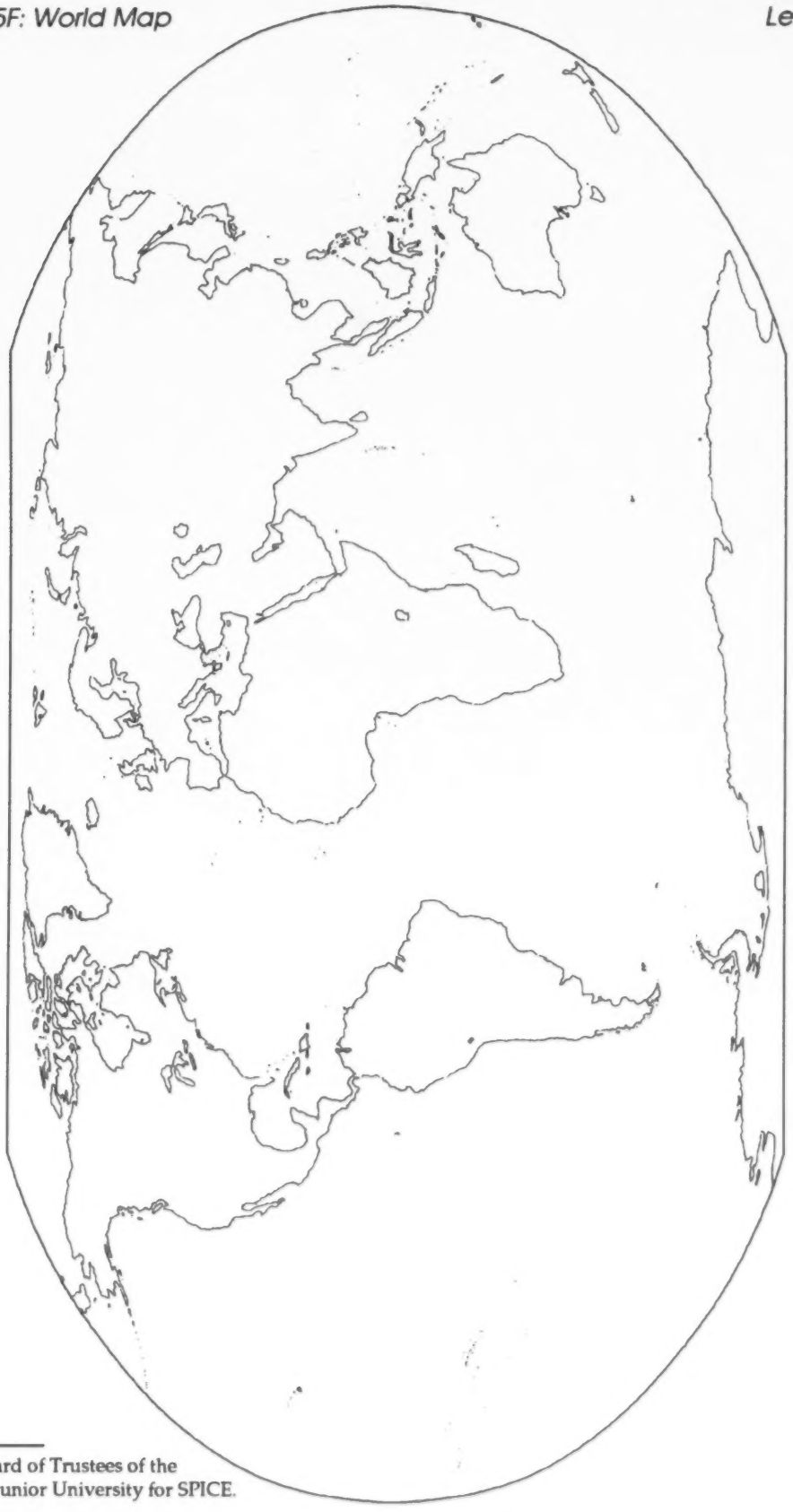
    a) a cold rainy climate
    b) the arrival of the 49's
    c) warehouse facilities to store green coffee beans
    d) the invention of the percolator

14. Place a "0" by coffee-consuming nations and an "X" by coffee-producing nations. Then (on the back of this handout) list each nation under the appropriate heading: SOUTH AMERICA, AFRICA, ASIA, CENTRAL AMERICA, OCEANIA.

Bolivia	Ivory Coast	India	Malaysia
Japan	Indonesia	Peru	Australia
El Salvador	Colombia	Madagascar	Chile
Philippines	South Africa	Kenya	Thailand
Nicaragua	Guatemala	Ethiopia	Vietnam

SOUTH AMERICA	AFRICA	ASIA	OCEANIA (South Pacific)	CENTRAL AMERICA
Bolivia(X)	Ivory Coast(X)	India(X)	Australia(0)	El Salvador(X)
Peru(X)	Madagascar(X)	Thailand(X)		Nicaragua(X)
Colombia(X)	South Africa(0)	Vietnam(X)		Guatemala(X)
Chile(0)	Kenya(X)	Malaysia(X)		
	Ethiopia(X)	Philippines(X)		
		Indonesia(X)		
		Japan(0)		

© 1990 SPICE



© 1989 by the Board of Trustees of the
Leland Stanford Junior University for SPICE.

Glossary

ABSOLUTE ADVANTAGE: A condition that exists when one producer can produce a product more efficiently than a second producer. The two producers benefit when each produces a product in which they have an absolute advantage and trade part of their output for the other producer's product.

AGRICULTURAL SECTOR: The environmental resources, capital, and labor that are required to produce animal or plant products sold abroad or consumed domestically. In the coffee industry this entire sector is located in the producer nations of Asia, Africa, South America, Oceania, and North America. In North America, the coffee producing regions are: Central America, Mexico, the Caribbean, and Puerto Rico. Seasonal and full-time occupations involved are called in Spanish cafeteros <cah- feh-tair-ohs> (pickers), beneficiadores <beh-neh-fee-see-edores> (tend trees, rake, and bag green coffee beans), and finqueros <feen-kay-rohs> (landowners). In Brazil the landowners are called fazenderos <fah-zehn-day-rohs> and farms are fazendas.

BALANCE OF PAYMENTS: An accounting record (kept annually) of all economic transactions between a country and the rest of the world.

BALANCE OF TRADE: The deficit or surplus in a country's merchandise trade; the difference between the amount of merchandise imported and exported expressed in terms of value.

CAPITAL-INTENSIVE: When the most important part of the production process involves the use of machines, equipment, and technology, then that production process is said to be capital-intensive. More frequently the industrial sector of the coffee industry is turning toward mechanization and computerization.

CAPITALISM: Economic system marked by at least these major characteristics: 1) prevalence of private ownership of property, 2) property has been accumulated: "capital" provides income to its owners, 3) freedom of individuals and businesses to seek their own economic gain, and 4) economic activity is largely directed by the interaction of supply and demand in the market.

CAPITAL RESOURCES: There are two kinds of capital. First, capital may be money, investments, or other examples of monetary wealth. Second, capital may be tools, machines, buildings, and other equipment used to produce goods. In this unit, there will be many examples of the second definition of capital. Yet both are a critical part of the international coffee industry.

CARTEL: A price-fixing market-sharing agreement in which various countries engage in order to set a price on a product and maximize the profits for an industry as a whole.

CASH MARKETS: Cash markets involve the buying and selling of real commodities and the contract is completed when the goods are delivered.

COMMERCIAL SECTOR: Those segments of an international industry which are involved in the sale of the finished products. This includes those who import and export products: the brokers, agents, wholesale and retail salespersons, and other "middlemen."

COMMODITIES: Tangible goods that are bought and sold.

COMMODITY EXCHANGE: A commodity exchange involves the marketing of agricultural goods such as barley, corn, cotton, oats, soybeans, meat, wheat, beef, cattle, hides, butter, coffee, pork, sugar, copper, gold, and lead. The Chicago Board of Trade is the largest commodity exchange in the world. There are two kinds of markets: Cash and Futures.

COMPARATIVE ADVANTAGE: A condition that exists when one producer can produce two or more products more efficiently than a second producer, but the ratio of advantage is greater in one of the products than in the other. Both producers benefit by the efficient producer producing the product in which it has the greatest advantage and the inefficient producer producing the product in which it has the smallest disadvantage, each trading for the product it doesn't produce.

DUTY: Tax charged by a government, especially on imports. (See "tariff")

ENVIRONMENTAL RESOURCES: The land, climate, and geographic conditions which are utilized in the production of goods and services. In the international coffee industry the land may be mountainous or flat, but the climate must be temperate or cool. Coffee requires shade from the direct sun.

EXPORTS: Goods and services produced in one country and sent to another country for sale.

FOREIGN EXCHANGE: Exchange of foreign currency.

FOURTH WORLD: The poorest countries of the less developed areas that do not have intensive growth or any valuable export resources.

FREE TRADE: International trade that is unrestricted by government protectionist measures.

FUTURES MARKETS: Futures trading involves the purchase and sale of contracts to receive or deliver certain quantities and grades of a commodity at a specified future time.

GENERAL AGREEMENT ON TRADE AND TARIFFS (GATT): In 1947 seventy-five member nations agreed to accept a code of conduct in order to end barriers to international trade. If one party grants a trade advantage to one country, then another country must grant the same advantage to all parties. Rules also limit the use of import quotas and other restrictions to the flow of goods.

HUMAN RESOURCES: Labor is another factor of production. Sometimes labor means the workers as contrasted with managers, yet in the context of this curriculum the emphasis is on all types of human activities which are involved in world coffee production. These tasks, or occupations, are broken down into sectors (see below) to explain the various stages of the production process.

IMPORTS: Goods and services sold in a country besides the one where they were produced.

INDUSTRIAL SECTOR: Processors (called técnicos <tek-nee-cohs>) include skilled technicians who prepare and manufacture products for sale. In the case of the coffee industry, it is important to understand that decaffeination (removing the caffeine through a chemical or water-based treatment) and freeze-drying are two processes which can occur in the producer nation or the industrialized nation. Until the 1960's, consumer nations, such as the United States, actively opposed the introduction of coffee products into U.S. markets if they had been processed in the producer nation. Today many parts of the production process occur in the developing nations; however most of the industrial processing of the coffee industry occurs in the United States and Western Europe where large corporations dominate the industry.

INTERDEPENDENCE: The relationship between nations which depend on each other to meet their needs.

INTERNATIONAL COFFEE AGREEMENT: Over fifty of the major producing and consuming nations meet every six years to determine limits to the amount of coffee placed on world markets. Such quota systems are voluntary trade barriers whose purpose is to protect producers from a drastic drop in prices and to protect consumers from a drastic increase in prices.

INTERNATIONAL MONETARY FUND: This is an agency within the United Nations whose purpose is to encourage free international trade through loans to countries with trade or foreign exchange deficits. In return for the loan, the IMF is able to place restrictions on the country with the trade or foreign exchange deficit.

© 1990 SPICE

INTERNATIONAL TRADE: The exchange of goods and services between nations.LABOR INTENSIVE: When the most important factor of production is the human resources which are required to produce the good or service, then the entire process is said to be labor-intensive. It is important to understand that in the coffee industry, all picking, raking, and sorting is done by hand. This requires large numbers of seasonal laborers in the developing producer country who are dependent upon the coffee industry within that country.

LESS DEVELOPED COUNTRY (LDC): A non-industrialized country, generally characterized by poverty income level, labor force primarily employed in agriculture, extensive underemployment, illiteracy, and located in Africa, Asia, or Latin America.

NON-TARIFF BARRIERS: A trade restriction, which is not related to taxes; includes quotas, government buying policies, domestic subsidies, and voluntary trade restraints.

PRICE: The market for coffee sets the price based upon supplies and demand by consumers. Yet the market is not free since producing nations have agreed to limit their exports through a quota system outlined in the International Commodity Agreement.

PRICE INELASTICITY OF DEMAND: Consumers do not tend to buy a great deal more coffee when coffee prices drop; nor do they buy a great deal less coffee when coffee prices rise. The economic concept of price inelasticity of demand means that a price decrease results in such a small increase in quantity demanded that revenues (earnings) fall.

PROTECTIONISM: General term used to describe government action designed to limit or eliminate imports which compete with domestically produced goods.

PROTECTIONIST MEASURES: Actions taken by a government in order to limit or exclude imports which compete with domestic production.

QUOTA: A limit on the quantity or value of a good that can be imported in a given time period.

SERVICE SECTOR: Those occupations which are not directly involved in making a product, but rather provide information, training, organizational skills, consultation. Teachers, doctors, lawyers, engineers, and others are examples of occupations in the service sector of the economy.

SURPLUS: When too much coffee is produced, producer nations either stockpile reserves within the country or try to put more green coffee beans up for sale in world markets. International coffee agreements limits the amount sold by a producer nation and they also force many nations to smuggle excess coffee stocks onto the world market.

© 1990 SPICE

TARIFF: A tax placed on an imported good; also, the whole schedule of a country's import duties.

TARIFF QUOTA: A combination of a limited quantity or value of a good that can be imported free of duty or at a low tariff and high tariffs imposed on amounts exceeding the limit.

TERMS OF TRADE: The relative price of exports in terms of imports akin to bartering. A ratio of average export prices to average import prices.

THIRD WORLD: The less developed, non-aligned nations in Asia, Africa, and Latin America.

TRADE BALANCE: The difference between export earnings and the import bill.

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD): Conference set forth in 1947 that resulted in a code of practical rules for fair trading in international commerce.

VOLUNTARY TRADE RESTRAINT: Typically a bilateral agreement, stating the quantity of a certain product a country will be limited to in its exports to the other country.

© 1990 SPICE

Appendix A

An explanation of ABSOLUTE and COMPARATIVE ADVANTAGE.

The concepts of absolute and comparative advantage are useful in thinking about international trade. Although understanding the concept of absolute advantage is fairly straightforward, comparative advantage often proves more perplexing. The following has been prepared to provide the reader with a simplified explanation.

ABSOLUTE ADVANTAGE refers to a situation in which one country can produce a product more efficiently or cheaply than another country. If the United States can produce radios more efficiently than England, then the U.S. has an absolute advantage in radio production. The question that plagued economist David Ricardo (1772-1823), however, was why should a country that has an absolute advantage in several commodities trade with other countries. In other words, if the United States could produce both wheat and radios more efficiently than England, why should the United States choose to trade with England at all? (As in any theory certain assumptions must be made. In this case, assume that these are the only two products of concern.)

The theory of COMPARATIVE ADVANTAGE provides the answer as to why the United States may still wish to trade with England given these circumstances. First, notice the following. Assume that in one hour the United States can produce two radios or six bushels of wheat. England, however, produces only one radio or one bushel of wheat in one hour.

Commodities produced in one hour

	Radios	Wheat
United States	2	6
England	1	1

The United States has an absolute advantage in radios and in wheat. The U.S. can produce both radios and wheat more efficiently than England. Why would the United States consider trading with England given this scenerio? The answer lies in the fact that the United States can gain from England's labor. Relatively speaking, in relationship to the United States, England is more efficient at producing radios than it is in producing wheat. England can produce 1/2 the amount of radios that the U.S. can, but only 1/6 the amount of wheat.

	Radios	Wheat
United States/England	2:1 (=1/2)	6:1 (=1/6)

© 1990 SPICE

Therefore, by trading with England and capitalizing on England's relative strength in producing radios, the U.S. can put more labor in wheat production. England can then put more labor in radio production.

Assume now that three hours have transpired. The U.S. has produced 18 bushels of wheat and England has produced three radios. The U.S. trades part of its output, let's say, six bushels of wheat for three radios. The U.S. has gained in that whereas before trade relations, the U.S. could only get two radios for six bushels of wheat, it can now receive three radios for 6 bushels of wheat.

Before Trading

	Radios		Wheat
United States	2	or	6
England	1	or	1

After Trading

	Radios	Wheat
United States	3	6
England	1	6

England too has gained in that before trading it could only get three bushels of wheat for three radios. After trade relations it could get six bushels of wheat for three radios.

Both countries have benefitted by trading.

© 1990 SPICE

Appendix B

History Social Science Framework of California

COFFEE CONNECTIONS meets the criteria set forth by the California State Department of Education in the History Social Science Framework for the 9th and 12th grades.

GRADE NINE

World Regional Geography: "One of the realities of the contemporary world is the increasing influence of other nations in the daily life of the American citizen." (p. 79) Students study basic physical geography and map reading skills with an emphasis on selected nations "studied in depth." (p. 79)

Area Studies: Cultures: "A course in area studies focuses on an investigation of one or more cultures within a geographic region of the world today; for example, culture studies ofthe Middle East, **Latin America**, or Southeast Asia." (p. 81)

GRADE TWELVE

Economics (one semester)

"In a one-semester course in economics, students should deepen their understanding of the economic problems and institutions of the nation and world in which they live." (p. 108)

International Economic Concepts

"In this final unit students should concentrate on the differences between intranational and international trade"

". . . .Students should learn why nations trade internationally, and they should understand comparative and absolute advantage."

© 1990 SPICE

Curriculum Unit Evaluation Form

STANFORD PROGRAM ON INTERNATIONAL AND
CROSS-CULTURAL EDUCATION LATIN AMERICA PROJECT

School District: _____

1. Subjects you teach: _____

2. Grade levels: _____

3. Years of teaching experience: _____

4. Title of unit: _____

5. Author(s): _____

6. How did you come across this unit?:

- ☐ purchased it from _____
- ☐ borrowed it from _____
- ☐ was given to me by _____

7. What subject did you use the unit for?:

8. If you used one or more of the activities, did you:

a) follow the procedures?
b) adapt activities moderately?
c) adapt activities significantly?

9. If you choose **b** or **c** please explain:

10. How clear were the following (rank from **1 = very clear to 5 = very unclear**)?

Procedures _____
Handouts _____
Answer Sheets _____
Directions for Students _____

© 1990 SPICE

11. Rank the following parts from **1 = most useful to 5 = least useful.**

	Useful to you personally	Useful to your class
Introduction	_____	_____
Glossary	_____	_____
Lesson 1	_____	_____
Lesson 2	_____	_____
Lesson 3	_____	_____
Lesson 4	_____	_____
Lesson 5	_____	_____
Visual aids	_____	_____
Suggested readings	_____	_____

12. How appropriate were the following?
(rank from 1 = very appropriate to 5 = very inappropriate)

		Comments:
Suggested grade level	_____	_____
Suggested time for activities	_____	_____
Content of the activities	_____	_____
Overall objectives	_____	_____
Evaluations	_____	_____
Definitions of words	_____	_____

13. What part of the unit did you like the best? Why?

14. What part of the unit did you like the least? Why?

Please mail this form to: Spice: Latin America Project
Littlefield Center, Room 14
300 Lasuen Street
Stanford, CA 94305-5013

© 1990 SPICE

Recommended Resources on Economics Education: Focus on Latin America

Curricular Resources

Joint Council on Economics Education. Strategies for Teaching Economics: World Studies. JCCEE, 1212 Avenue of the Americas, New York, N.Y. 10036.

— This and other curriculum materials from JCCEE introduce concepts, rationale and utilize cases to introduce economics education into traditional social studies courses. This volume features a case study of the 1977 Brazilian frost which damaged millions of trees and sent coffee prices sky high. A contemporary issues approach is taken with news headlines included.

Koransky, Bruce. Teaching About the Consumer and the Global Marketplace, Global Awareness Series, Grades 4-12. Center for Teaching International Relations, University of Denver, Denver, Colorado 80208.

— Two sections of lessons on "The Consumer: Past Present and Future" and "The Consumer and the World" include concept-based lessons on trade, tariffs, protection, labor- intensive systems, capital-intensive systems and many other topics which are important in the context of international economics.

Johnson, Jacquelyn and John Benegar. Global Issues in the Intermediate Classroom. Grades 5-8. Social Science Education Consortium, Boulder, Colorado, 1981.

— A series of lessons on "Peanut Butter" and other products which involve many parts of the world are introduced in an activity-based format for elementary students.

Mings, Turley. The Study of Economics: Principles, Concepts and Applications. Dushkin Publishing Group, Inc. Guilford, CT, 06437.

Background Reading

Foreign Policy Association. Great Decisions, 1984. FPA, Inc. 205 Lexington Avenue, New York, NY 10016.

Grunwald, Joseph and Philip Musgrove. Natural Resources in Latin American Development. Resources for the Future, Inc. Baltimore: John Hopkins Press, 1969

Inter American Development Bank. Economics and Social Progress in Latin America. Natural Resources, 1983. Washington, D.C., 1983. Available annually.

International Coffee Organization, Coffee: The World Cup 1979. 22 Berners Street, London WIP 4DD, England.

Starbird, Ethel. "Coffee-The Bonanza Bean." National Geographic. March, 1981. pp. 388-407.

U.S. Department of Agriculture. Foreign Agricultural Service. Washington, D.C. World Coffee Situation. January, 1983.

U.S. Department of Commerce. International Trade Administration. Washington, D.C. 20230.

© 1990 SPICE